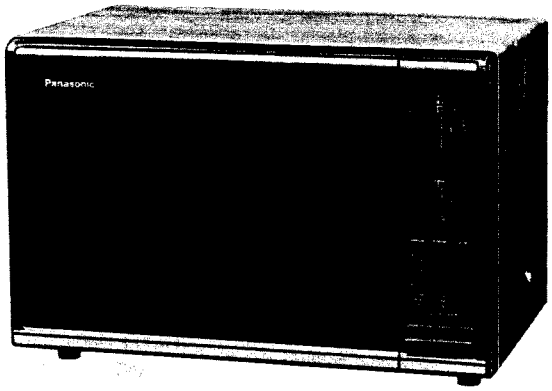
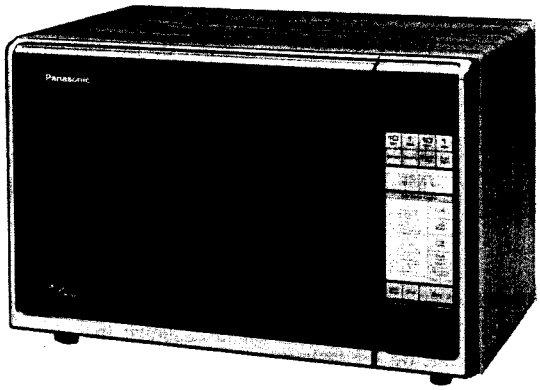
ORDER NO. MOD87050806C1
E1

Service Manual

Microwave Oven

NN-6207
NN-6307
NN-6407
NN-6507
NN-6567
NN-6607
NN-6707
NN-6757
NN-6807





Specifications

Power Source :	120 V AC Single Phase 60 Hz
Power Requirement :	1,380 W : (12.0 A)
Output :	700 W : Full Power
Oscillation Frequency :	2,450 MHz
Timer :	99 min. 99 sec. (Digital)···Touch Control model 30 min. (Rotary)···NN-6207
Outside Dimensions :	20-7/8" (W) × 14-3/4" (D) × 14" (H) 530 mm (W) × 374 mm (D) × 356 mm (H)
Oven Cavity Dimensions :	13-7/8"" (W) × 12-5/8" (D) × 10-1/4" (H) 354 mm (W) × 320 mm (D) × 259 mm (H)
Weight :	33 lbs (15.0 kg)
Specifications subject to change without notice.	

Panasonic®

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This service manual covers products for following markets.
When troubleshooting or replacing parts, please refer to the country identifications shown below for your applicable products specification.

APH··· For U.S.A and some of Latin America countries
CPH··· For Canada

WARNING

1. This product should be serviced only by trained qualified personnel.
2. Though this product has been manufactured in compliance with:
   "Federal Performance Standard 21 CFR Subchapter J" (D.H.H.S.): U.S.A. models
   or "Radiation Emitting Devices Act" (NHW): Canadian models
   it is very important all repairs should be made in accordance with procedures described in this manual to avoid being exposed to excessive microwave radiation.
3. Check for radiation leakage after every servicing according to the "Procedure for Measuring Radiation Leakage" on page 22.
4. Any serviceman who learns of any accident pertaining to microwave radiation leakage should immediately notify the appropriate address listed below.

IN U.S.A. (MSC)	Matsushita Services Company 50 Meadowland Park way, Secaucus, New Jersey 07094 Attention: Engineering Support Division. (201) 348-7000	IN PUERTO RICO (PSC)	PSC Ave. 65 De Infanteria, KM 9.7 Victoria Industrial Park Carolina, Puerto Rico 00630 (809) 750-4300
IN HAWAII (PHI)	PHI 91-238 Kauhi St. Ewa Beach P.O. Box 774 Honolulu, Hawaii 96808-0774 (808) 682-2851	IN CANADA (MELCA)	Matsushita Electric of Canada Limited 5770 Ambler Drive, Mississauga, Ontario, L4W2T3 (416) 624-5010

5. There are special components used in the microwave oven which are important for safety. These parts are shaded on the schematic diagram and marked with a ⚠ on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent microwave leakage, shock, fire, or other hazards. Do not modify the original design.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

(A) Do not operate or allow the oven to be operated with the door open.

(B) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary:
   (1) Interlock operation
   (2) Proper door closing
   (3) Seal and sealing surfaces (arcing, wear, and other damage)
   (4) Damage to or loosening of hinges and latches.
   (5) Evidence of dropping or abuse

(C) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, waveguide or transmission line, and cavity for proper alignment, integrity and connections.

(D) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.

(E) A microwave leakage check to verify compliance with the Federal Performance Standard should be performed on each oven prior to release to the owner.

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LOCATION OF NAMEPLATE

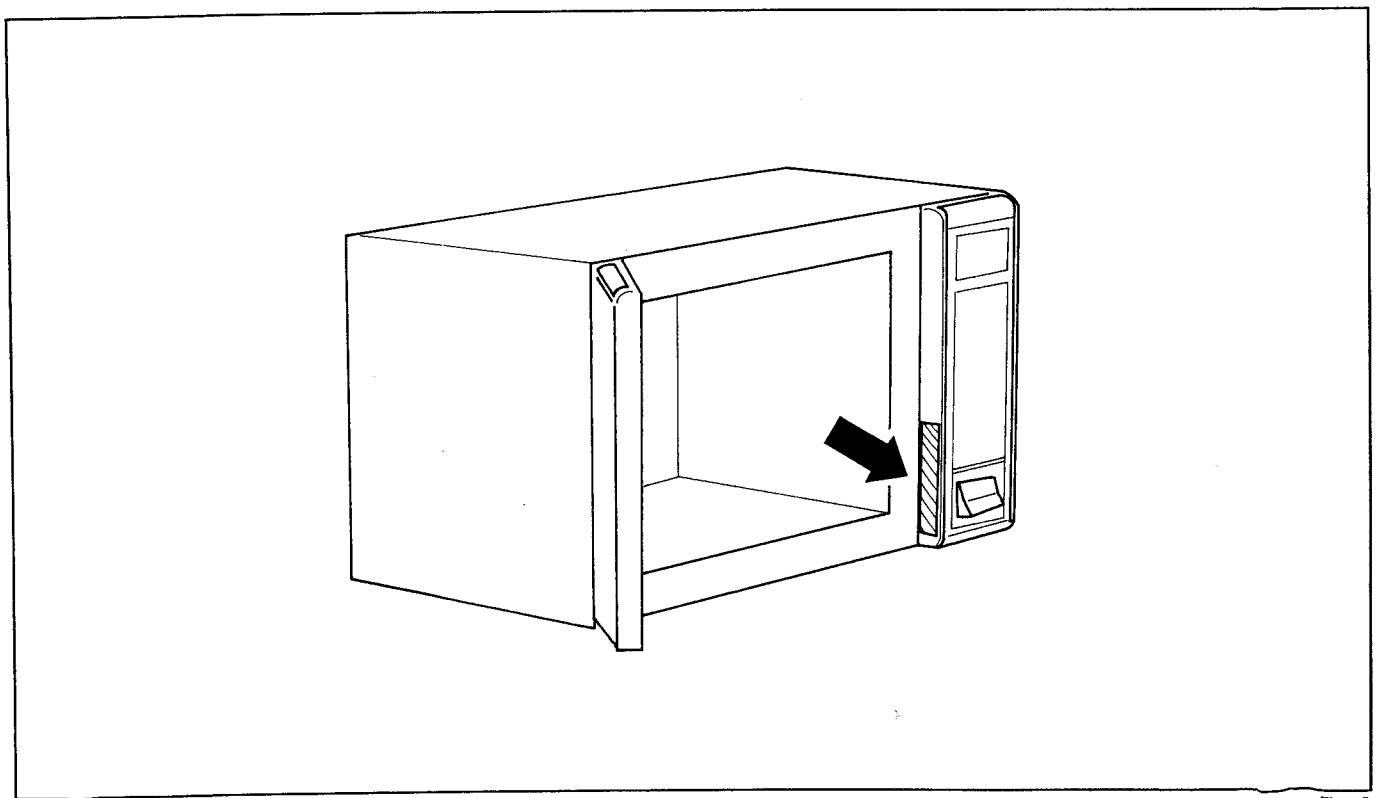


Fig. A

The nameplate is located on frame of the escutcheon base as illustrated in Fig. A.
The model and serial numbers will be found on this nameplate.

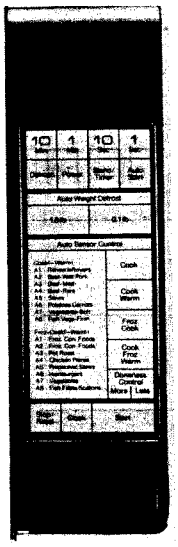
FEATURE CHART

FEATURE \ MODEL		NN-6807	NN-6707 NN-6757	NN-6607	NN-6507 NN-6567	NN-6307 NN-6407	NN-6207
CYCLIC DEFROST		○	○	○	○	○	—
2-STAGE COOKING		○	○	○	○	○	—
3-STAGE COOKING		○	○	○	○	—	—
AUTO SENSOR CONTROL	COOK	○	○	—	—	—	—
	COOK-WARM	○	—	—	—	—	—
	FROZ-COOK	○	—	—	—	—	—
	FROZ-COOK-WARM	○	—	—	—	—	—
AUTO WEIGHT DEFROST		○	○	○	○	○	—
AUTO WEIGHT COOK		—	—	—	○	—	—
AUTO WEIGHT FROZ COOK		—	—	—	○	—	—
AUTO REHEAT		—	—	—	○	※ ○	—
TEMP PROBE COOK		—	—	○	—	—	—
AUTO START		○	○	○	○	○	—
TIMER/STAND		○	○	○	○	○	—
DIGITAL CLOCK		○	○	○	○	○	—
MECHANICAL TIMER		—	—	—	—	—	○
MECHANICAL VARI-POWER		—	—	—	—	—	○

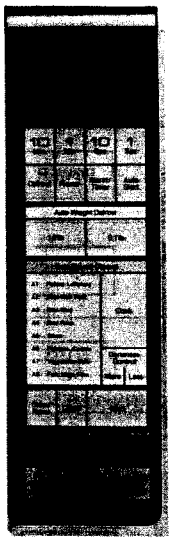
※NN-6407 only

CONTROL PANEL

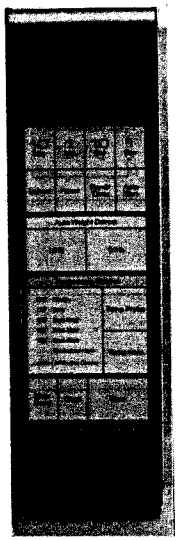
NN-6807



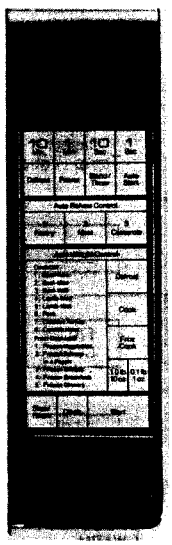
NN-6707
NN-6757



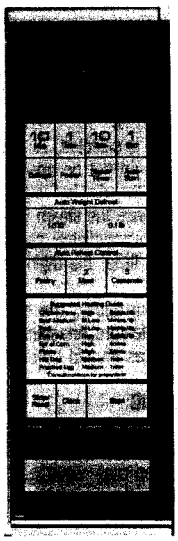
NN-6607



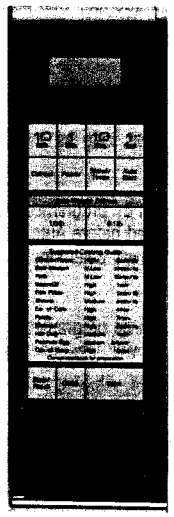
NN-6507
NN-6567



NN-6407



NN-6307



OPERATION PROCEDURE (Touch Control models)

	Step 1	Step 2	Step 3	Step 4	Step 5
Clock Set	CLOCK	10 1 10 1	CLOCK		
Time Cooking (2-Stage)	POWER	10 1 10 1	POWER	10 1 10 1	START
Time Defrost	DEFROST	10 1 10 1	START		
Auto Weight Defrost	AUTO DEF (NN-6507/6567)	1.0LB 0.1LB	START		
Auto Weight Cook	AUTO COOK 1~8	1.0LB 0.1LB	START		
Auto Weight Frozen Cook	FROZ COOK 1~5	10oz 1oz	START		
Auto Reheat	AUTO REHEAT 1~3	START			
Temperature Probe Cooking	Insert Temp Probe	POWER	TEMP	START	
Auto Sensor Cook	A.S. COOK	If desired MORE LESS or	START		
Auto Sensor Frozen Cook	FROZ COOK	If desired MORE LESS or	START		
Auto Sensor Cook Warm	COOK WARM	If desired MORE LESS or	START		
Auto Sensor Froz Cook Warm	FROZ-COOK WARM	If desired MORE LESS or	START		

For more detailed operating sequence, See pages 33 through 37.

NOTES WHEN PROGRAMMING:

CLOCK SET:
(1) To reset time of day (TOD) tap Clock Pad twice to clear the time and enter the correct TOD.
(2) The clock will keep the TOD as long as oven is plugged in and electricity is supplied.

AUTO WEIGHT DEFROST:
(1) Stand time or time cooking can be programed after Auto Weight Defrost.
(2) Auto Start can not be programed before Auto Weight Defrost.
(3) The shape and size of the food will determine the maximum weight the oven can accommodate.

AUTO WEIGHT COOK:
(1) Stand time or time cooking can be programed after Auto Weight Cook.
(2) The shape and size of the food will determine the maximum weight the oven can accommodate.

AUTO WEIGHT FROZEN COOK:
(1) Stand time or time cooking can be programed after Auto Weight Frozen Cook.
(2) The shape and size of the food will determine the maximum weight the oven can accommodate.

AUTO REHEAT:
(1) Stand time or time cooking can be programed after Auto Reheat.

AUTO SENSOR COOKING:
(1) The Auto Sensor system works by detecting a build-up steam on the humidity sensor. As foods cook in a microwave oven, steam is produced. When foods are covered, the steam will build up and escape from the dish in a burst when this burst of steam is detected by the humidity sensor the oven automatically calculates the remaining cooking time.
(2) When an Auto Sensor Cycle is selected, A1 through A8 will appear in the display window. The oven door should not be opened for longer than one minute when A1 through A8 appears in the display window. Opening the door may cause inaccurate cooking results. Once the steam is detected, a two beep signal is heard the remaining cooking time immediately appears in the display window and begins to count-down. At this time, the oven door may be opened to stir, turn or add foods.
(3) The room air temperature surrouding the oven should not be above 95°F when using Auto Sensor Cooking feature. Inaccurate cooking may result
(4) Foods less than 3 or 4 ounces should be cooked by power and time, not by the Auto Sensor Cooking Cycle.

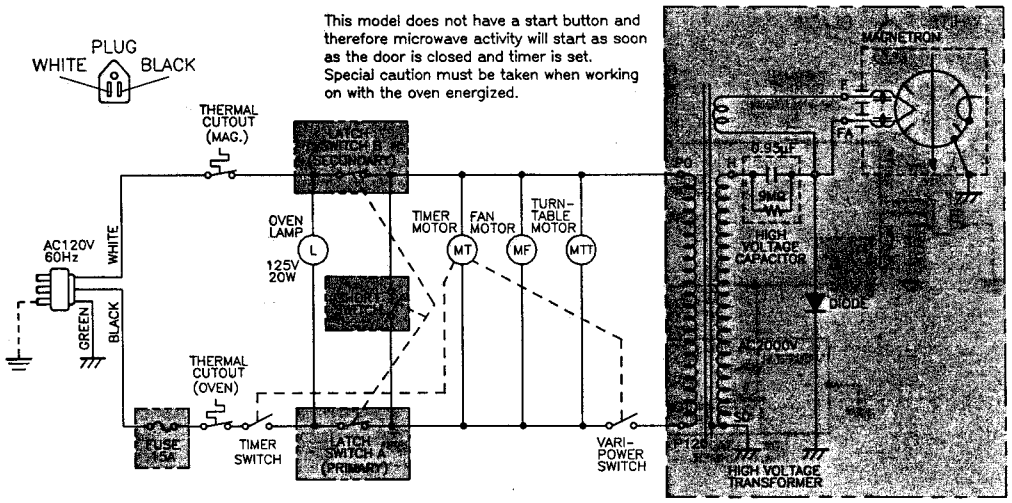
TEMPERATURE PROBE COOKING:
(1) Temperature probe must be insurted at least one inch into center of food.
(2) Do not store probe inside oven cavity. Should oven be turned on accidentally, damage to probe and/or oven may result.
(3) Do not allow temperature probe tip to touch surface of oven wall. Damage to probe and/or oven may result.
(4) If the second stage temperature is lower than the first stage temperature, the oven will turn off after the first stage cooking of cooking is completed.

SCHEMATIC DIAGRAM (NN-6207)

SCHEMATIC DIAGRAM

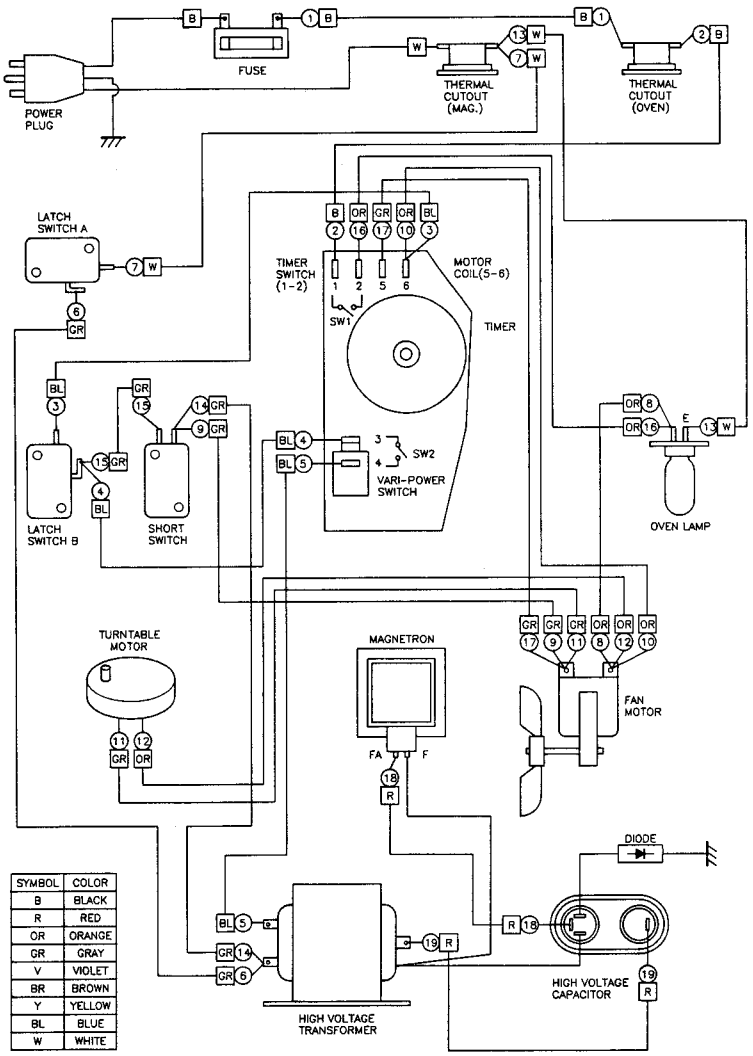
NOTE: Door is closed.
Timer switch is off.
⏚ Ground ⏚ Chassis

This model does not have a start button and therefore microwave activity will start as soon as the door is closed and timer is set. Special caution must be taken when working on with the oven energized.



IMPORTANT SAFETY NOTE: THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM MICROWAVE RADIATION, FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC DIAGRAM.

WIRING DIAGRAM

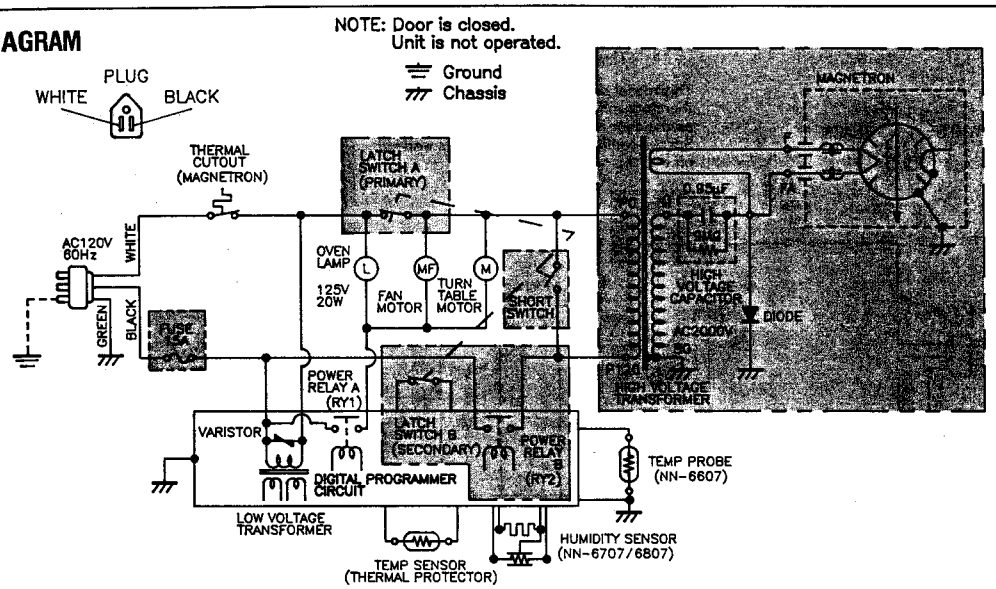


SYMBOL	COLOR
B	BLACK
R	RED
OR	ORANGE
GR	GRAY
V	VIOLET
BR	BROWN
Y	YELLOW
BL	BLUE
W	WHITE

Fig. 1

SCHEMATIC DIAGRAM (Touch Control models) (APH)

SCHEMATIC DIAGRAM



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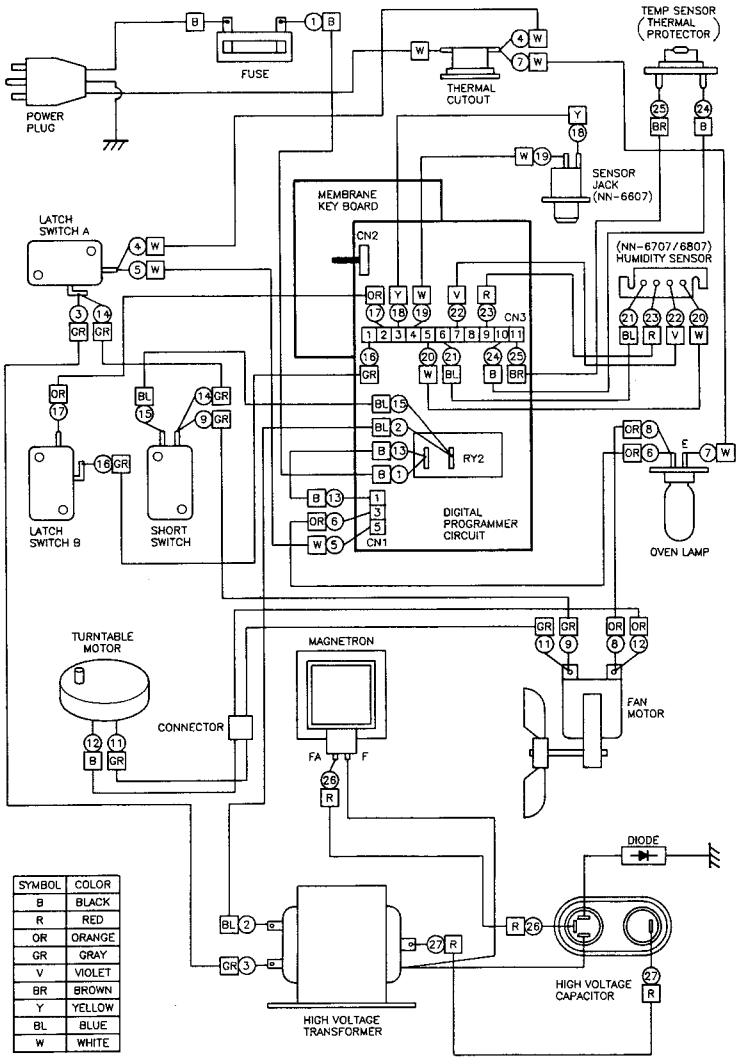
WIRING DIAGRAM

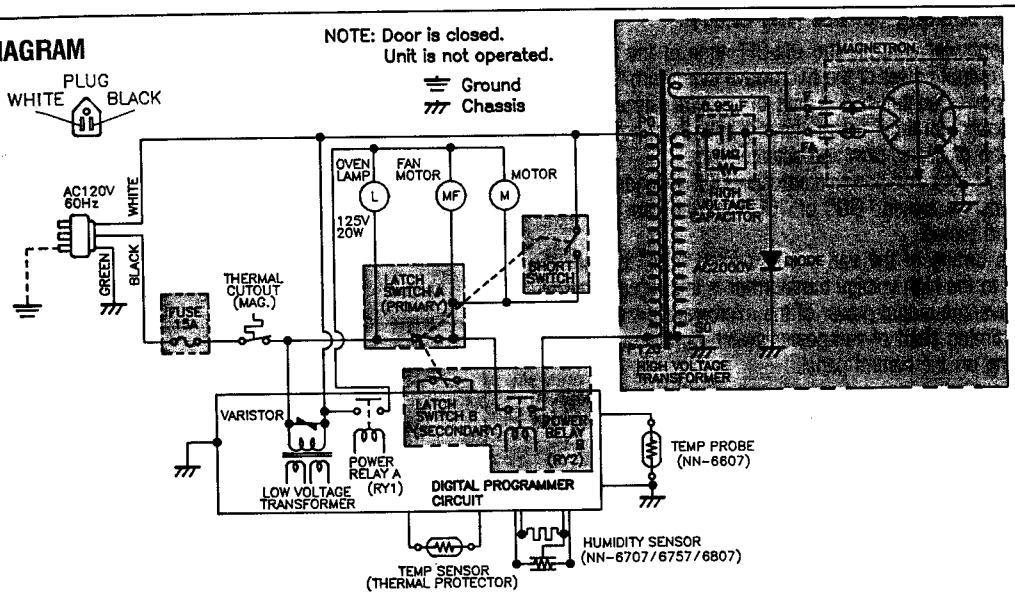


SYMBOL	COLOR
B	BLACK
R	RED
OR	ORANGE
GR	GRAY
V	VIOLET
BR	BROWN
Y	YELLOW
BL	BLUE
W	WHITE

Fig. 2

SCHEMATIC DIAGRAM (Touch Control models) (CPH)

SCHEMATIC DIAGRAM



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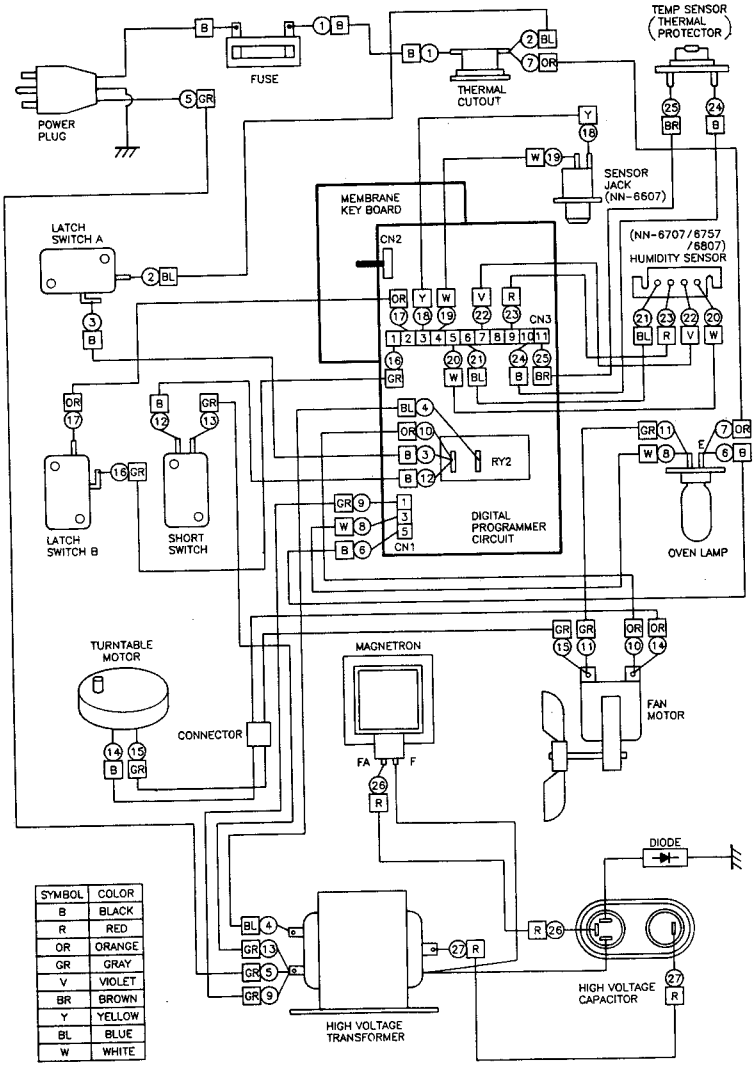
WIRING DIAGRAM



SYMBOL	COLOR
B	BLACK
R	RED
OR	ORANGE
GR	GRAY
V	VIOLET
BR	BROWN
Y	YELLOW
BL	BLUE
W	WHITE

Fig. 3

DESCRIPTION OF OPERATING SEQUENCE

1. Variable power cooking control (NN-6207)

The vari-power controller controls the ON-OFF time of the vari-power switch to vary the output power of the microwave oven from "Warm" to "High". The vari-power controller is a part of the timer assembly. The timer assembly consists of timer motor, timer switch, vari-power switch and the combination of gears, cam and actuater lever.

One complete cycle of the vari-power controller is 22 seconds, in which the vari-power switch is turned "ON" or "OFF" by the cam rotation in the 22 ± 2 second period.

By controlling the timing of the vari-power switch "ON" period, the 120V AC supplied to the high voltage transformer is interrupted intermittently so that the average output power of the microwave oven is varied. **Fig. 4** shows the timing chart of vari-power switch operation in respect to the power setting on the control panel.

NOTE: The ON/OFF time ratio does not correspond with the percentage of microwave power since approximately 2 seconds are required for heating of magnetron filament.

1". Variable power cooking control (Touch control models)

The coil of power relay B (RY2) is energized intermittently by the digital programmer circuit, when the oven is set at any power selection except for High power position. The digital programmer circuit controls the ON-OFF time of power relay B contacts in order to vary the output power of the microwave oven from "Warm" to "High" power. One complete ON and OFF cycle of power relay B is 22 seconds.

The relation between indications on the control panel and the output of the microwave oven is as shown in **Fig. 4**

NOTE: The ON/OFF time ratio does not correspond with the percentage of microwave power since approximately 2 seconds are required for heating of magnetron filament.

2. Cyclic defrost (Touch control models)

When defrost power and defrosting time are selected and Start pad is tapped:

(A) The digital programmer circuit (DPC) divides the total defrosting time into 8 equal periods, consisting of four defrosting periods, each followed by a standing periods. (See **Fig. 5**)

(B) During defrosting power periods, power relay B is energized for 9 seconds and de-energized for 13 seconds by DPC. (See **Fig. 6**)

(C) During standing periods, power relay B is always open resulting in no microwave power.

NOTE: Defrost time selected is converted into seconds by the DPC but display will show selected time in minutes and seconds as programmed. The total number of seconds is divided into 8 time periods. The remainder (seconds not equally divisible by 8) are added to the last standing time period.

Example 1: If defrosting time is selected for 2 minutes 56 seconds, each operating period will be as follows: (See **Fig. 7**)
2 minutes 56 seconds = 176 seconds
176/8 = 22

Example 2: If defrosting time is selected for 5 minutes, each operating period will be as follows : (See **Fig. 8**)
5 minutes = 300 seconds
300/8 = 37 and remainder is 4 seconds.
The 4 seconds is added to the last time period.

NOTE: When defrosting time is selected for not more than 7 seconds, the power relay B will not be energized at all.

INDICATION	OUTPUT POWER AGAINST HIGH POWER	ON, OFF TIME ON VARI-POWER SWITCH/ POWER RELAY B
High	22/22 (700W)	22S ON, 22S ON
Med	17/22 (70%)	17S ON, 5S OFF
M. Low	13/22 (55%)	13S ON, 9S OFF
Defrost (NN-6207)	9/22 (35%)	9S ON, 13S OFF
Low	8/22 (30%)	8S ON, 14S OFF
Warm	4/22 (15%)	4S ON, 18S OFF
Defrost (Touch model)	Approx. 110W	Please refer to description of cyclic defrost.

Fig. 4

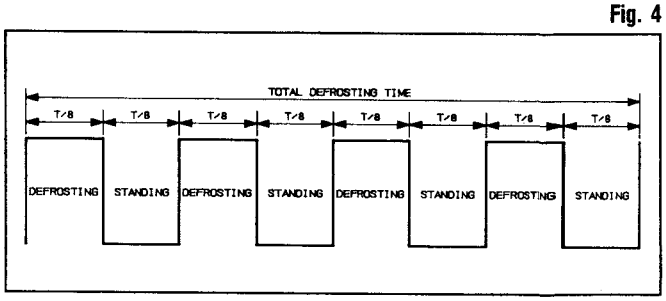


Fig. 5

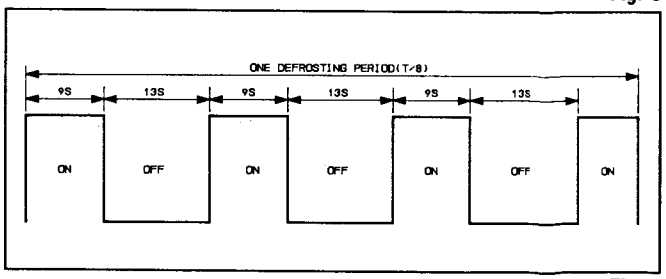


Fig. 6

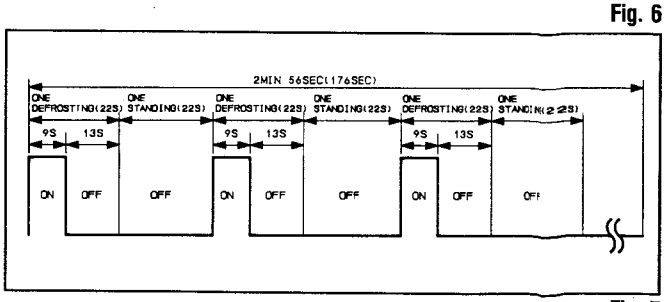


Fig. 7

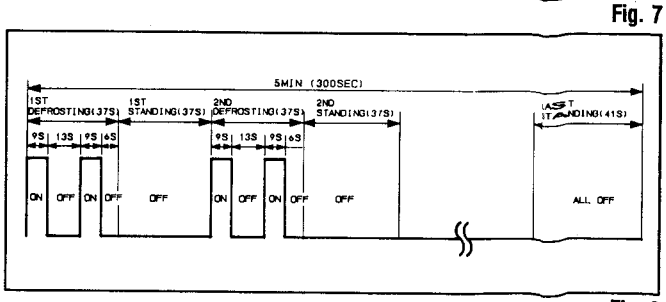


Fig. 8

3. Temperature probe cooking control (NN-6607)

The digital programmer circuit turns off both power relay A and B when the food temperature, which is detected by the temp probe's thermistor, reaches the selected temperature and stops the oven.
Current temperature of the food is displayed in rising 5°F increments starting at 90°F. If starting temperature is lower than 90°F, "L90F" (meaning lower than 90°F) will be displayed until food reaches 90°F.

NOTE: When the Temp-Hold feature is selected, the digital programmer circuit turns power relay B ON and OFF to maintain the desired temperature within the period as selected. When the tempholding period has elapsed, the DPC turns off both power relay A and B and stops the oven.

4. Auto weight cook control (NN-6507/6567)

Consists of the following pads :
- Auto Weight Cook Pad
- Weight Pads
- Start Pad

When the Auto Weight Control, Cook feature is selected by tapping the appropriate key pads and the Start Pad is tapped:

(A) The digital programmer circuit determines the power level and cooking time to complete cooking and indicates the operating state in the display window.
Fig. 9 shows the corresponding cooking times with respective weights by categories.

(B) When cooking time in the display window has elapsed, the oven turns off automatically by the controlled signal from the digital programmer circuit.

5. Auto weight defrost control (Touch control models)

Consists of the following pads:
- Auto Weight Defrost Pad (NN-6507/NN-6567)
- Weight Pads
- Start Pad

When the Auto Weight Control, Defrost feature is selected and the Start Pad is tapped:

(A) The digital programmer circuit functions exactly the same as when Auto Weight Cook control is selected, except for some variations in cooking powers and cooking times.
Fig. 10 shows the defrosting times for respective weights.

6. Auto weight frozen cook control (NN-6507/6567)

Consists of the following pads:
- Auto Weight Frozen Cook Pad
- Weight Pads
- Start Pad

When the Auto Weight Frozen Cook feature is selected and the Start Pad is tapped:

(A) The digital programmer circuit functions exactly the same as when Auto Weight Cook control is selected, except for some variations in cooking powers and cooking times.
Fig. 11 shows the cooking times for respective weights by categories.

7. Auto reheat control (NN-6507/6567/6407)

Consists of the following pads:
- Auto Reheat Control Pads (1-3)
- Start Pad

When the Auto Reheat Control feature is selected by tapping the appropriate key pads and the Start Pad is tapped.

(A) The digital programmer circuit determines the power level and cooking time to complete cooking and indicates the operating state in the display window.
Fig. 12 shows the corresponding cooking times with respective serving by categories.

(B) When cooking time in the display window has elapsed, the oven turns off automatically by a controll signal from the digital programmer circuit.

WEIGHT SELECTED	TOTAL COOKING TIME			
	CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4
1 LB	11 min. 40 sec.	14 min. 40 sec.	18 min. 40 sec.	12 min. 40 sec.
3 LB	35 min. 00 sec.	44 min. 00 sec.	56 min. 00 sec.	38 min. 00 sec.
5 LB	1 hour 05 min.	1 hour 18 min.	1 hour 28 min.	—
	CATEGORY 5	CATEGORY 6	CATEGORY 7	CATEGORY 8
1 LB	14 min. 40 sec.	15 min. 40 sec.	13 min. 40 sec.	7 min. 40 sec.
3 LB	44 min. 00 sec.	47 min. 00 sec.	41 min. 00 sec.	30 min. 00 sec.
5 LB	—	—	—	50 min. 00 sec.
6 LB	—	—	—	1 hour 00 sec.

Fig. 9

WEIGHT SELECTED	TOTAL DEFROSTING TIME
1LB	11 min. 30 sec.
3LB	34 min. 30 sec.
5LB	1hour 02 min.
6LB	1hour 18 min.

Fig. 10

WEIGHT SELECTED	TOTAL COOKING TIME		
	CATEGORY 1	CATEGORY 2	CATEGORY 4
1 OZ	39 sec.	42 sec.	42 sec.
10 OZ	6 min. 30 sec.	7 min. 00 sec.	7 min. 00 sec.
16 OZ	10 min. 24 sec.	11 min. 12 sec.	11 min. 12 sec.
	CATEGORY 3	CATEGORY 5	
1 OZ	54 sec.	45 sec.	
10 OZ	9 min. 00 sec.	7 min. 30 sec.	
20 OZ	16 min. 30 sec.	15 min. 00 sec.	
22 OZ	17 min. 42 sec.	16 min. 30 sec.	
32 OZ	23 min. 42 sec.	—	

Fig. 11

CATEGORY / SERVING	1	2	3
1	15 sec.	1 min. 00 sec.	2 min. 30 sec.
2	25 sec.	2 min. 30 sec.	5 min. 00 sec.
3	35 sec.	3 min. 30 sec.	7 min. 30 sec.
4	50 sec.	4 min. 00 sec.	9 min. 30 sec.

Fig. 12

AUTO SENSOR EXPLANATION, K FACTORS AND POWER LEVELS (NN-6807/6707/6757)

1. Auto sensor cooking

Auto sensor cooking is a revolutionary way to cook by microwave without setting a power level or selecting a time.
All that is necessary is to select an Auto Sensor Program before starting to cook.

Understanding of Auto Sensor Cooking

As a food cooks, a certain amount of steam is produced. If the food is covered, this steam builds up and eventually escapes from the container. In Auto Sensor Cooking, a carefully designed instrument, called the humidity sensor element, senses this escape of steam. Then, based upon the Auto Sensor Program selected, the unit will automatically determine the correct power level and the proper length of time it will take to cook the food.

NOTE: Auto Sensor Cooking is successful with the foods and recipes found in the Auto Sensor Cooking Guide. Because of the vast differences in food composition, items not mentioned in the Cooking Guide should be prepared in the microwave oven using power select and time features. Please consult Variable Power Microwave Cookbook for procedures.

2. Auto sensor cooking process

Explanation of the Auto Sensor Cooking process (See Fig. 13A and 13B)

1) The shaded columns in both graphs indicate when the humidity sensor heater is on.
2) During the first 50 second period there is no microwave activity, and when calculating the T2 time by using the formula below make sure this 50 seconds is subtracted from the T1 time. In other words T1 time starts at the end of the 50 second period. (This 50 second period is needed for the sensor element to stabilize and balance itself to the humidity present before microwave activity starts.)
3) T1 time.....The total amount of time it takes the microwave oven to switch to T2 time after the 50 second period. During this time one of the Auto Sensor programs will be shown in display.
4) T2 time.....When the steam escapes from the cooking container placed in the oven, the humidity sensor detects it and the microprocessor calculates the balance of cooking time. This T2 time is then shown in the display and begins counting down.
5) Warm.....There is a 60 minite warm cycle at the end of the Auto Sensor programmed COOK-WARM and FROZ-COOK-WARM. When the warm starts, the first 20 minutes will be at zero power to let the temperature of the food equalize. Then for the remaining 40 minutes the oven will be operating at 35 watts of power to keep the food warm.

NOTE: If T1 time is over 60 minutes, oven stops automatically and "FF FF" appears in display window.

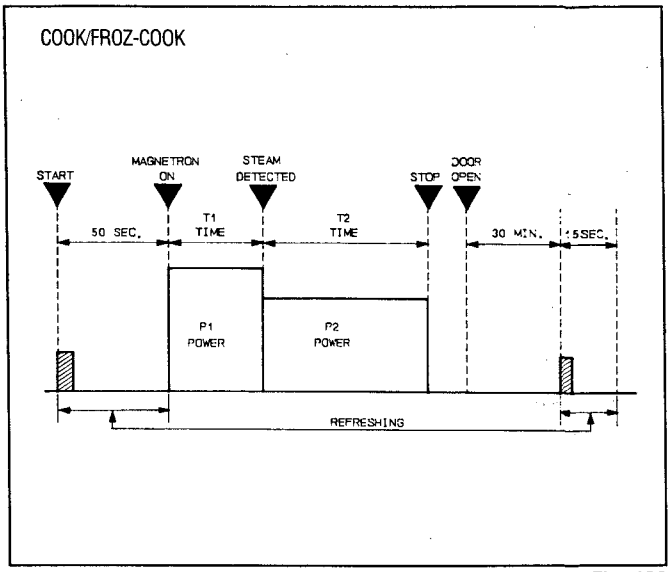


Fig. 13A

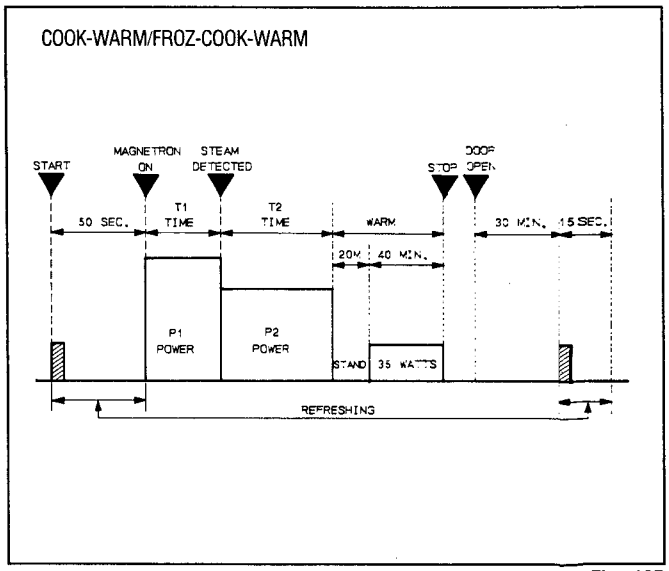


Fig. 13B

Balance of cooking time (T2 time)

The balance of cooking time which is called T2 time, can be calculated by the following formula.

T2 time (in sec.) =T1 time × K factor

NOTE: When calculating T2 time, the last digit of T1 time in seconds is cut away. For instance, if the T1 time is 76 seconds, the T2 time will be:

T2 = 70 × K

Remember, the T1 time starts after the 50 second refreshing period. The coefficient K is programmed into the microprocessor memory and they are listed in the following tables along with the P1 and P2 powers. (See **Fig. 14A and Fig. 14B**)

NOTE: When "More" or "Less" pad is selected, the K factor varies as shown in Fig. 14A and Fig. 14B resulting in T2 time to be increased or decreased.

Example 1: If the T1 time is measured to be 2 minutes and 45 seconds after the 50 second period, and the Auto program selected is COOK A4:

T2 = T1 × K
= 2 min. and 45 sec. × 2.5
= 160 sec. × 2.5
= 400 sec.
= 6 min. and 40 sec.

Example 2: If the T1 time is measured to be 15 minutes and 30 seconds after the 50 second period, and the Auto program selected is FROZ-COOK A2:

T2 = T1 × K
= 15 min. and 30 sec. × 0.5
= 930 sec. × 0.5
= 465 sec.
= 7 min. and 45 sec.

NOTE: If using a calculator please remember the calculator rounds off in decimal numbers, so the T2 time will come out slightly different than if seconds are changed back to minutes by regular long division. When using a calculator, simply multiply the tenths by 60 to get the correct number of seconds.
For instance take the T2 time in seconds from Example 2 above. Using the calculator divide 60 into 465 and the quotient will be 7.75. Then multiply 0.75 by 60 and the product will be 45 seconds.

COOK, COOK-WARM					
	P1 Power	P2 Power	K factor		
			Standard	More	Less
A1	HIGH	——	0	0	0
A2	MED	M. LOW	1.2	approx. 1.4	approx. 1.0
A3	MED	M. LOW	2.0	approx. 2.4	approx. 1.6
A4	MED	M. LOW	2.5	approx. 3.0	approx. 2.0
A5	MED	M. LOW	1.0/1.5	approx. 1.2/1.8	approx. 0.8/1.2
A6	MED	MED	1.3/2	approx. 1.6/2.4	approx. 1/1.6
A7	MED	MED	1	approx. 1.2	approx. 0.8
A8	MED	MED	0.3	approx. 0.4	approx. 0.2

Fig. 14A

FROZ - COOK, FROZ-COOK-WARM					
	P1 Power	P2 Power	K factor		
			Standard	More	Less
A1	HIGH	MED	0.8	approx. 1	approx. 0.6
A2	MED	HIGH	0.5	approx. 0.6	approx. 0.4
A3	MED	LOW	1.3	approx. 1.6	approx. 1.0
A4	HIGH	MED	0.6	approx. 0.7	approx. 0.5
A5	MED	LOW	0.5	approx. 0.6	approx. 0.4
A6	MED	——	0	0	0
A7	MED	MED	0.3	approx. 0.4	approx. 0.2
A8	MED	LOW	0.4	approx. 0.5	approx. 0.3

Fig. 14B

CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

CAUTION

Servicemen should remove their watches whenever working close to or replacing the magnetron.

1. Check the grounding

Do not operate on a 2-wire extension cord. The microwave oven is designed to be used when grounded. It is imperative, therefore, to make sure it is grounded properly before beginning repair work.

2. Warning about the electric charge in the high voltage capacitor (Fig. 16)

For about 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitor.
When replacing or checking parts, remove the power plug from the outlet and short the terminal of the high voltage capacitor (terminal of lead wire from diode) to chassis ground with an insulated handle screwdriver or insulated jumper lead wire to discharge.

WARNING

There is high-voltage present, with high-current capabilities in the circuits of the high voltage winding and filament winding of the high voltage transformer. It is extremely dangerous to work on or near these circuits with oven energized.
DO NOT measure the voltage in the high voltage circuit including filament voltage of magnetron.

WARNING

Never touch any circuit wiring with your hand nor with an insulated tool during operation.

3. When parts must be replaced, remove the power plug from the outlet.

4. When the 15 Amp fuse is blown due to the operation of short switch:

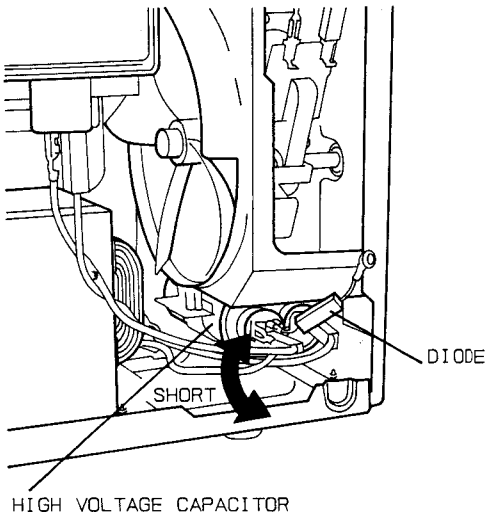
WARNING

When the 15 Amp. fuse is blown due to the operation of short switch, you must replace latch switch A and short switch. For U.S.A models, also replace power relay B when the continuity check reads shorted contacts (3-4).

(A) This is mandatory. Refer to page 21 for the necessary adjustments for these switches.
(B) When replacing the fuse, confirm that it has the appropriate rating for these models.
(C) When replacing faulty switches, be sure mounting tabs are not bent, broken or otherwise deficient in their ability to hold the switches.

5. Avoid inserting nails, wire, etc. through any holes in the unit during operation.

Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.



Touch chassis side first then short to the high voltage capacitor terminal.

Fig. 16

6. Confirm after repair

(A) After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing.
Microwaves might leak if screws are not properly tightened.
(B) Make sure that all electrical connections are tight before inserting the plug into the wall outlet.
(C) Check for microwave energy leakage. (Refer to procedure for measuring microwave energy leakage on page 22.)

DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE

1. Replacement of the magnetron

CAUTION

Servicemen should remove their watches whenever working close to or replacing the magnetron.

Removal of positive lock connector.
The positive lock connector is a specially designed locking connector and you will find this connector in many lead wire connections. To remove this connector, pull the lead wire by pressing an extruded lever in the center of receptacle terminal as shown in **Fig. 17**.

(A) Discharge the high voltage capacitor. (see page 14)
(B) Remove 2 screws holding magnetron thermal cutout. (**Fig. 18**)
(C) Remove 1 screw holding air guide A. (**Fig. 18**)
(D) Disconnect 2 high voltage lead wires from magnetron filament terminals (**Fig. 18**)
(E) Remove 4 screws holding the magnetron. (**Fig. 18**)

NOTE: After replacement of the magnetron, tighten mounting screws properly making sure there is no gap between the waveguide and the magnetron to prevent microwave leakage.

CAUTION

When connecting 2 filament lead wires to the magnetron terminals, be sure to connect the lead wires in the correct position. The lead wire of high voltage transformer should be connected to "F terminal" and the lead wire from high voltage capacitor should be connected to "FA terminal". (See **Fig. 18**)

2. Replacement of the timer (NN-6207)

(A) Disconnect all lead wires from timer. (**Fig. 19**)
(B) Remove Knobs and remove 4 screws holding the timer. (**Fig. 20**)

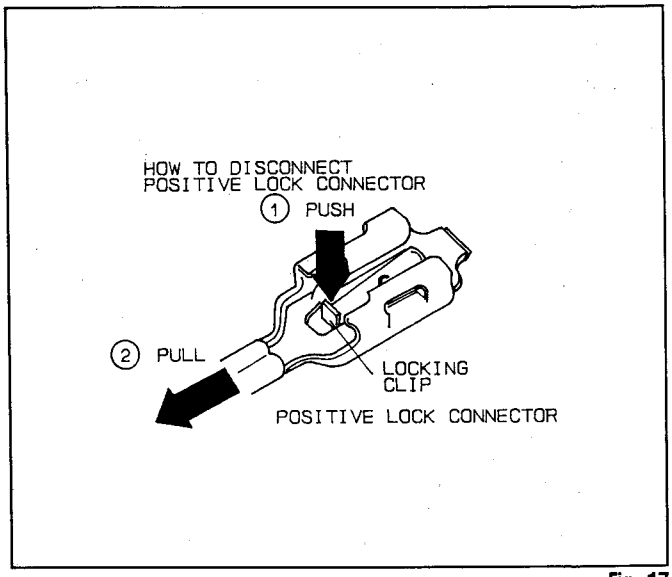


Fig. 17

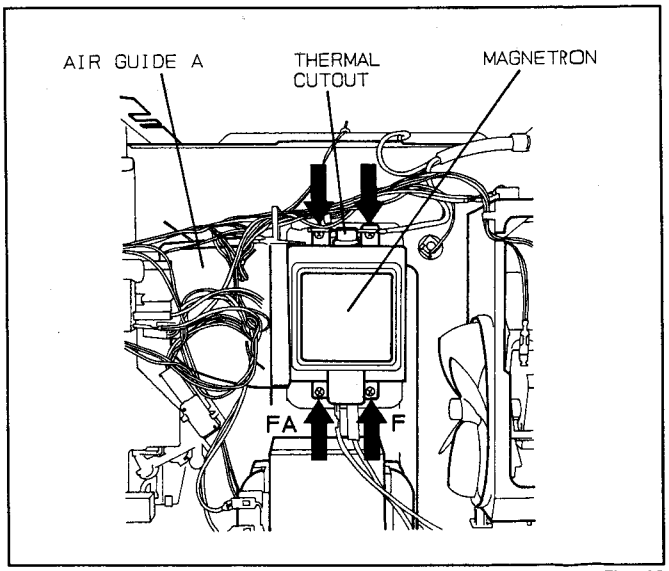


Fig. 18

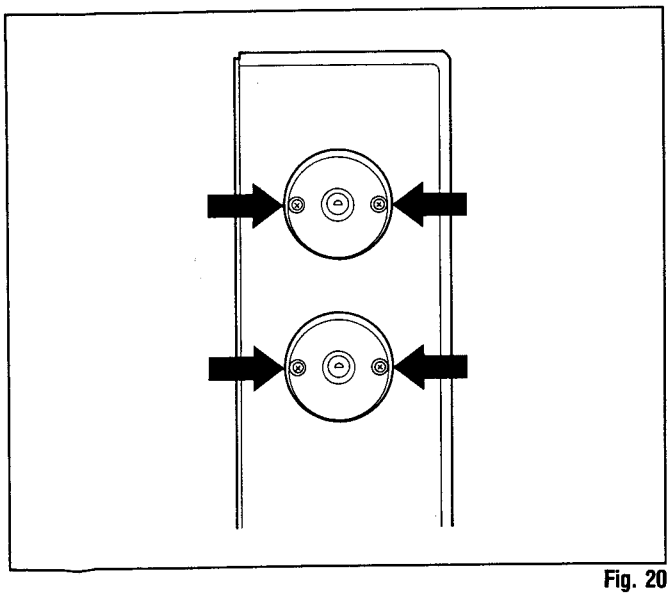


Fig. 20

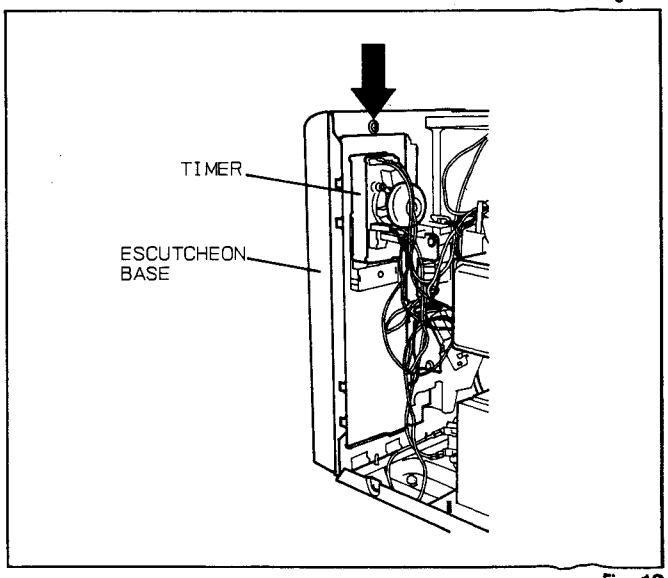


Fig. 19

2". Replacement of the digital programmer circuit (DPC) and membrane key board.

NOTE: Be sure to ground any static electric charge built up on your body, before handling the DPC.

(A) Disconnect 2 lead wires from power relay B (RY2) terminals. **(Fig. 21A)**
(B) Disconnect CN1 and CN3 connectors from DPC. **(Fig. 21A)**
(C) Remove 1 screw holding escutcheon base and slide the escutcheon base upward slightly. **(Fig. 21A)**
(D) Release CN2 connector's lock of DPC by pushing both levers to inside and pull them upward, and remove flat cable of membrane key board. **(Fig. 21B)**
(E) Remove 3 or 5 screws holding DPC. **(Fig. 21B)**

To replace membrane key board

(F) Remove escutcheon bracket from escutcheon base by freeing 4 catch hooks on the escutcheon base.
(G) Remove 1 screw holding membrane key board's tab and peel off the membrane key board from the escutcheon base. **(Fig. 21C)**

NOTE: The membrane key board is attached to the escutcheon bracket with double faced adhesive tape.

NOTE: When installing new membrane key board, make sure that the surface of escutcheon bracket is cleaned sufficiently so that any problems (shorted contacts or uneven surface) can be avoided.

NOTE: Make sure that new membrane key board is aligned to the left and lower eddes of the escutcheon bracket. (Fig. 21C)

3. Replacement of the low voltage transformer and/or power relays (RY1, RY2)

NOTE: Be sure to ground any static electric charge built up on your body before handling the DPC.

(A) Using solder wick or a desoldering tool and 30W soldering iron, carefully remove all solder from the terminal pins of the low voltage transformer and/or power relays.

NOTE: Do not use a soldering iron or desoldering tool of more than 30 watts on DPC contacts.

(B) With all the terminal pins cleaned and separated from DPC contacts, remove the defective transformer/power relays and install new transformer/power relays making sure all terminal pins are inserted completely. Resolder all terminal contacts carefully.

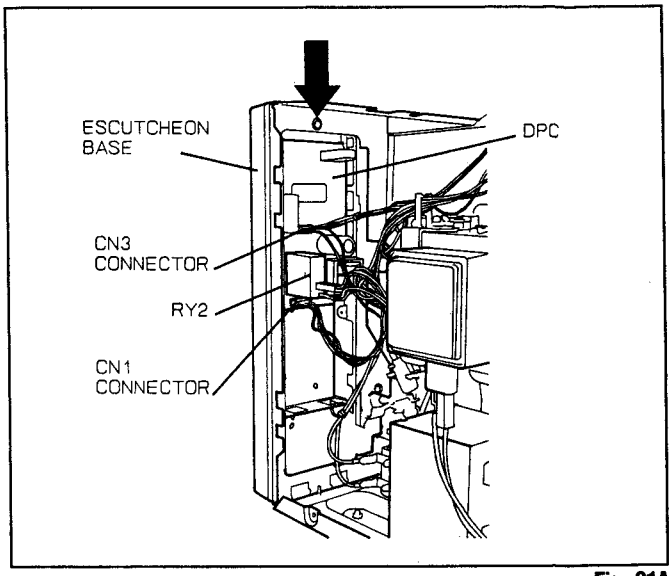


Fig. 21A

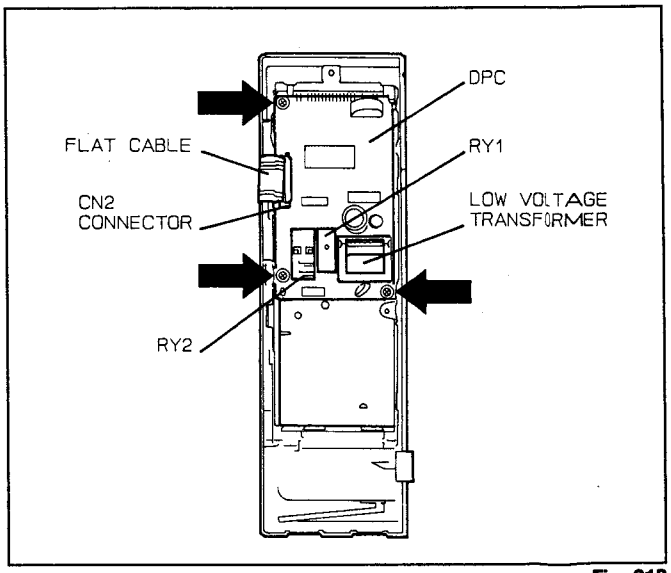


Fig. 21B

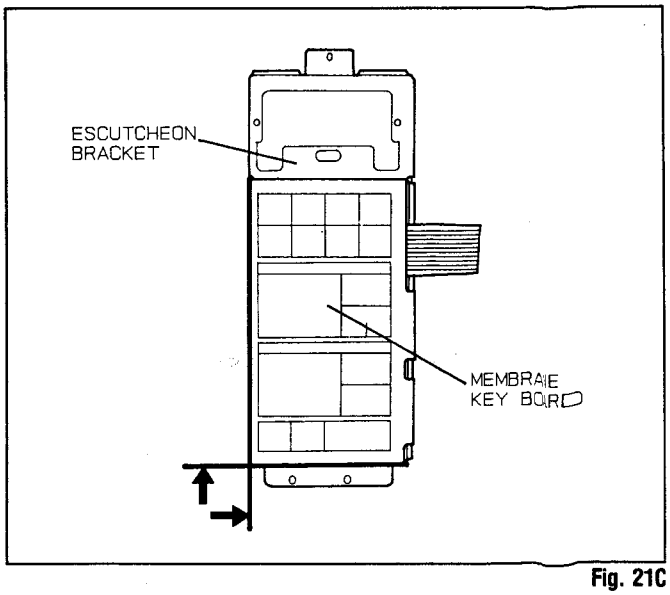


Fig. 21C

4. Replacement of the fan motor and high voltage capacitor.

(A) Disconnect 2 lead wires from fan motor terminals. **(Fig. 22)**
(B) Disconnect 2 lead wires from fuse holder terminals. **(Fig. 22)**
(C) Disconnect 4 high voltage lead wires from high voltage capacitor terminals. **(Fig. 22)**
(D) Remove 4 screws holding fan motor and orifice assy and detach the orifice assy with fan motor from oven assy. **(Fig. 23)**
(E) Remove fan blade from the fan motor shaft by pulling it straight out. **(Fig. 24)**
(F) Separate the fan motor from the orifice assy by freeing 2 catch hooks on the orifice assy. **(Fig. 24)**

To replace high voltage capacitor

(G) Remove 1 screw holding high voltage capacitor. **(Fig. 24)**

5. Replacement of temp sensor (thermal protector)

(A) Cut 2 lead wires at the top of sensor terminals. **(Fig. 25)**
(B) Remove 1 screw holding the temp sensor and replace with new one. **(Fig. 25)**
(C) Solder the lead wires securely to the sensor terminals.

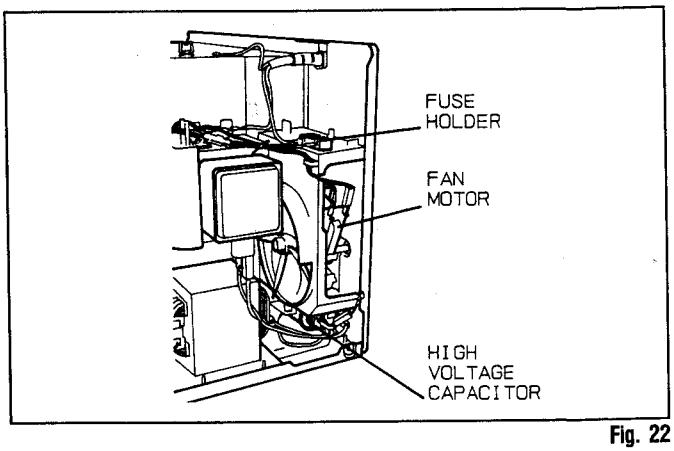


Fig. 22

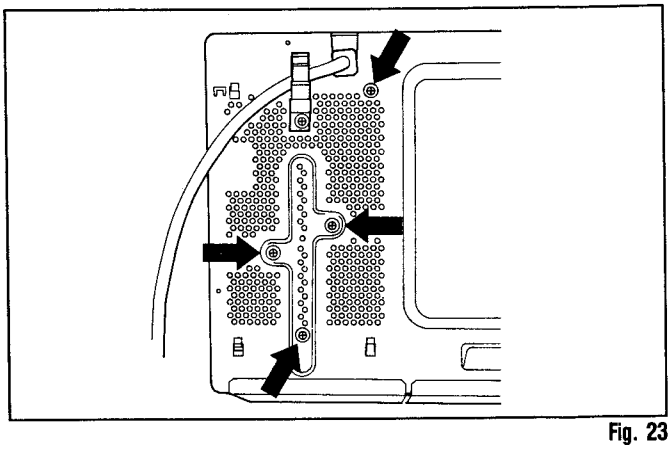


Fig. 23

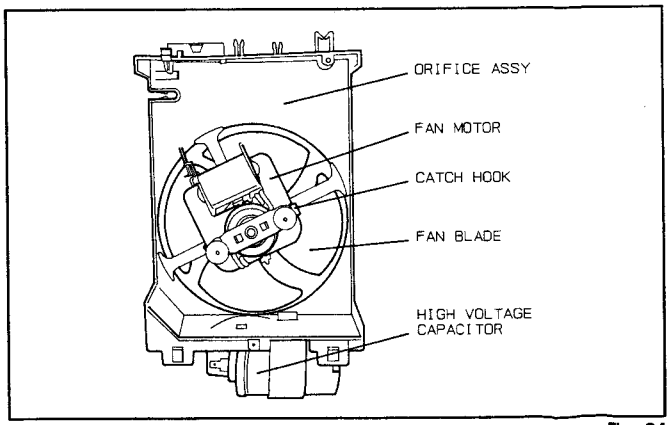


Fig. 24

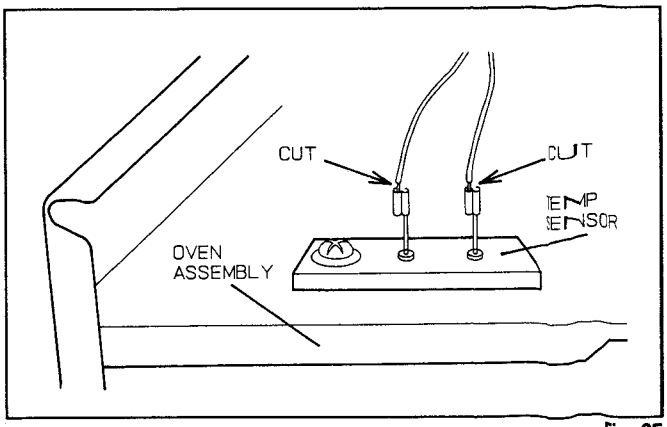


Fig. 25

6. Disassembly of the door assembly

(A) Open the door and remove door C from door E by carefully pulling outward starting from upper right hand corner. **(Fig. 26)**
(B) Remove door key and door key spring. **(Fig. 26)**
(C) Remove 3 screws holding side and bottom frames of door A. **(Fig. 27)**
(D) Separate the door A from the door E by freeing 6 catch hooks on the door A using a flat screwdriver. **(Fig. 27)**

7. Replacement of the turntable motor.

(A) Lay the oven on its as illastrated in **Fig. 28**.
(B) Remove 2 screws holding motor cover. **(Fig. 28)**
(C) Disconnect 2 lead wires from turntable motor **(Fig. 29)**.
(E) Remove 2 screws holding turntable motor **(Fig. 29)**.

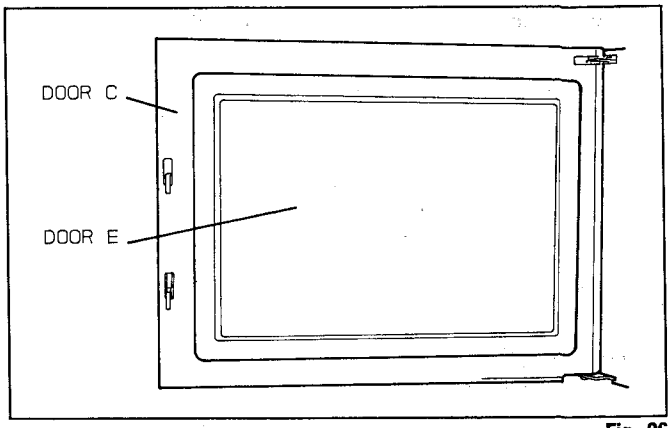


Fig. 26

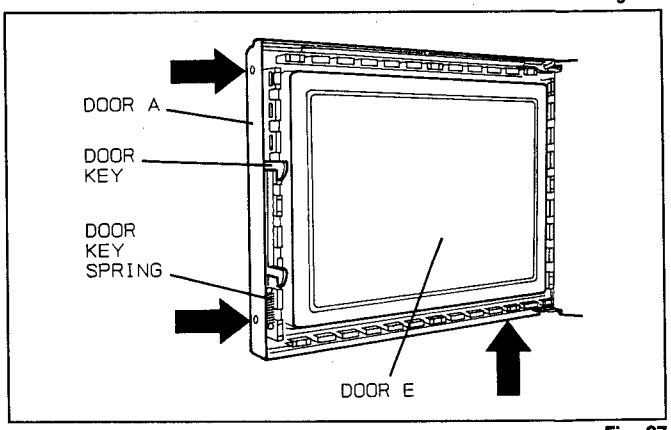


Fig. 27

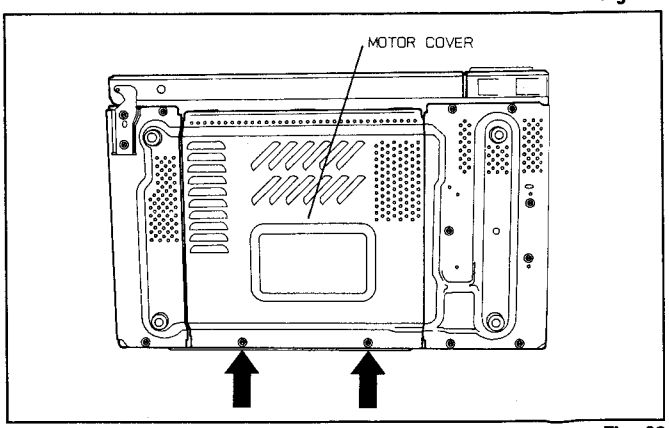


Fig. 28

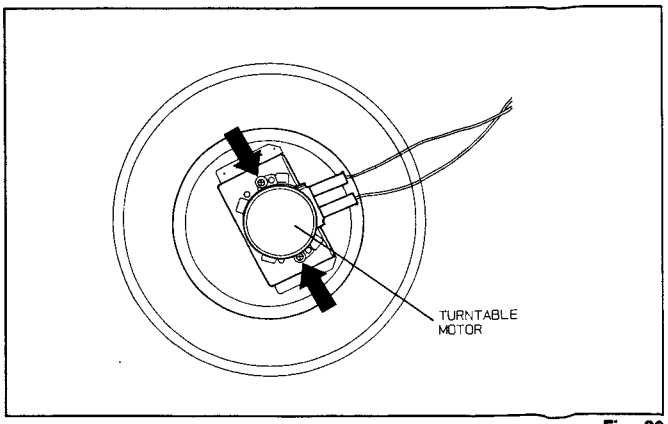


Fig. 29

COMPONENT TEST PROCEDURE

CAUTION

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components, or wiring, always unplug the oven from its power source and discharge the high voltage capacitor. (See page 14.)

1. High voltage transformer (See Fig. 30)

(A) Remove connections from the transformer terminals and check continuity.
(B) Normal (cold) resistance readings should be as follows:
Secondary winding .....Approx. 80Ω~120Ω
Filament winding.....Approx. 0Ω
Primary winding .....Approx. 0Ω~ 1Ω

2. High voltage capacitor

(A) Check continuity of capacitor with meter on highest OHM scale.
(B) A normal capacitor will show continuity for a short time, and then indicate 9MΩ once the capacitor is charged.
(C) A shorted capacitor will show continuous continuity.
(D) An open capacitor will show constant 9MΩ.
(E) Resistance between each terminal and chassis should be infinite.

3. Diode

(A) Isolate the diode from the circuit by disconnecting the leads.
(B) With the ohmmeter set on the highest resistance scale, measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions. A normal diode's resistance will be infinite in one direction and several hundred kΩ in the other direction.

4. Magnetron (See Fig. 31)

Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.
(A) Isolate magnetron from the circuit by disconnecting the leads.
(B) A continuity check across magnetron filament terminals should indicate one ohm or less.
(C) A continuity check between each filament terminal and magnetron case should read open.

5. Membrane key board (Membrane switch assembly)

Check continuity between switch terminals, by tapping an appropriate pad on the key board. The contacts assignment of the respective pads on the key board is as shown in **Fig. 32A and 32B.**

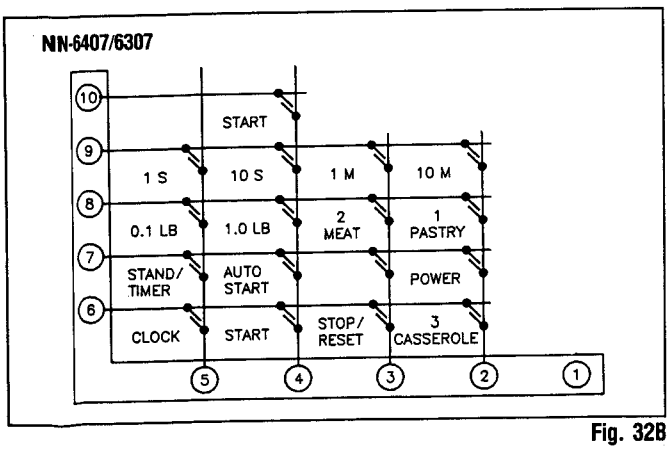


Fig. 32B

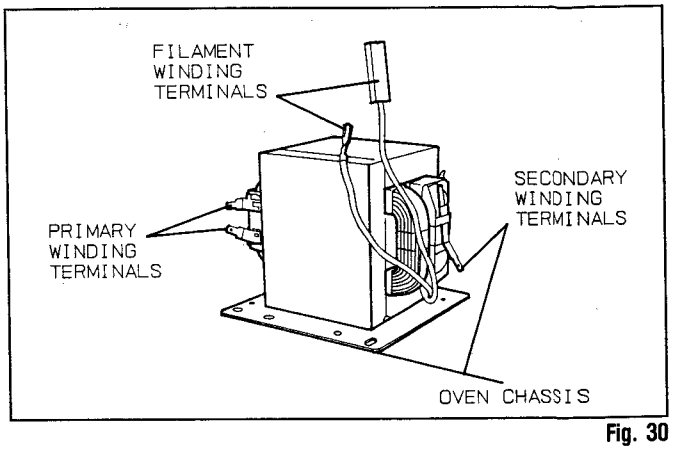


Fig. 30

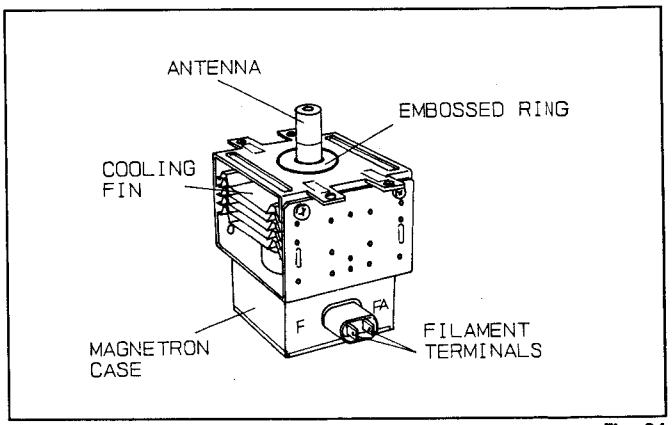
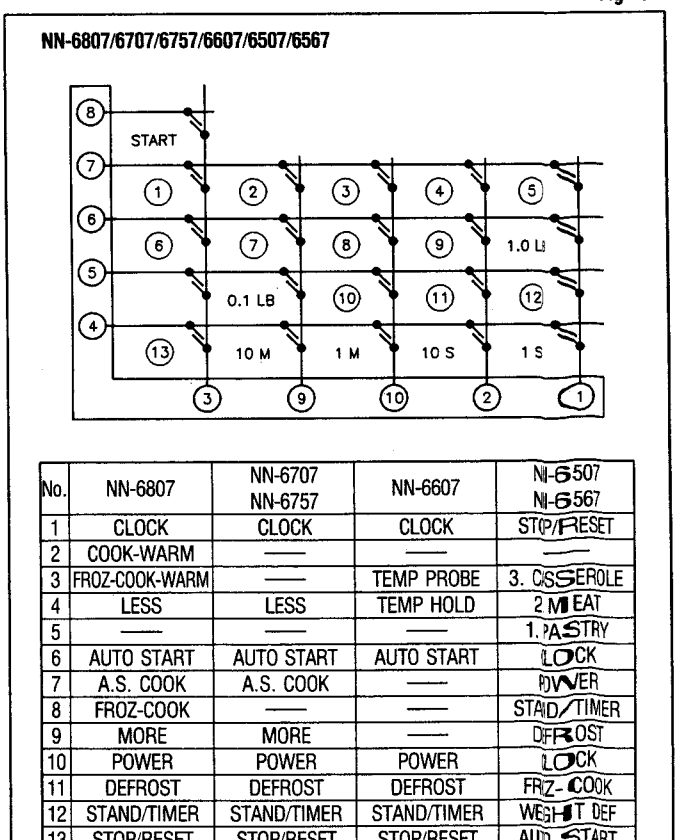


Fig. 31



No.	NN-6807	NN-6707 NN-6757	NN-6607	NN-6507 NN-6567
1	CLOCK	CLOCK	CLOCK	STOP/RESET
2	COOK-WARM	—	—	—
3	FROZ-COOK-WARM	—	TEMP PROBE	3. CASSEROLE
4	LESS	LESS	TEMP HOLD	2 MEAT
5	—	—	—	1. PASTRY
6	AUTO START	AUTO START	AUTO START	CLOCK
7	A.S. COOK	A.S. COOK	—	POWER
8	FROZ-COOK	—	—	STAND/TIMER
9	MORE	MORE	—	DEFROST
10	POWER	POWER	POWER	CLOCK
11	DEFROST	DEFROST	DEFROST	FROZ-COOK
12	STAND/TIMER	STAND/TIMER	STAND/TIMER	WEIGHT DEF
13	STOP/RESET	STOP/RESET	STOP/RESET	AUTO START

Fig. 32A

6. Humidity Sensor and digital programmer circuit (Fig. 33)

CAUTION

Do not touch any parts of the circuitry on the digital programmer circuit since static electric discharge may damage this control panel.
Always ground yourself while working on this panel to discharge any static charge built up on your body.

(A) Check across sensor heater terminals. Normal cold resistance should read approx. 6 ohm.
(B) In order to determine if the Auto Sensor function of the digital programmer circuit is in working order or not, do the following test.
1) Place a water load in the oven.
2) Unsolder red and violet wires connected to sensor terminals.
3) Tap Auto Sensor Cook Control Pad once for set Auto Sensor Cooking at A1 and tap Start Pad.
4) About 10 seconds after Start Pad is tapped short red and violet wires for 5 seconds and then remove them. Before shorting the red and violet wires you can watch the sensor heater glow red.
5) The oven lamp will dim a little, about 50 seconds after the Start Pad is tapped. This indicates that magnetron has started oscillation.
6) 10 seconds after magnetron oscillation, short the shielded wires again. The oven should turn off automatically when the red and violet wires are shorted.

The Auto Sensor function in the digital programmer circuit is in working order if above condition is obtained.

7. To test the sensor probe's thermistor

Fill a container partially with lukewarm water and place a thermometer in it. Then take the sensor probe out of the oven and place it in the container next to the thermometer so they will both sense the exact same temperature. Now take another container with boiling hot water and gradually pour this into the first container to achieve graduated temperature steps. At each temperature step listed in the chart **(Fig. 34)**, you should read the approximate corresponding resistance with an ohmmeter. If not, the probe is defective and should be replaced.

NOTE: Of cource all of the above steps are very dependent upon the accuracy of the ohmmeter, thermometer, and human error. Please take these factors carefully into consideration before determining if the probe is defective.

8. Variable power controller (Fig. 35)

(A) Isolate variable power switch from the circuit by disconnecting 2 leads.
(B) In order to check if variable power controller is operating normally, follow the test procedures below.
(1) Select any power other than "High" and start the oven.
(2) Check continuity between both terminals of the variable power switch.
(3) Variable power controller (timer and variable power switch) is working properly if the ohm meter reads open and 0 ohm within 22 ± 2 seconds interval as shown in **Fig. 3** on page 9.

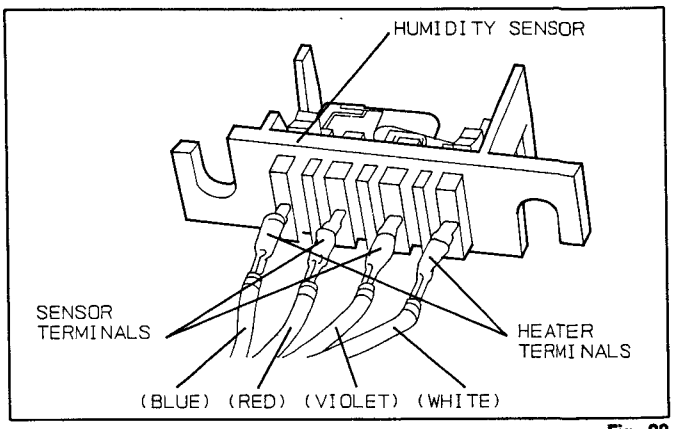


Fig. 33

Temp.		Thermistor Resistance Nominal (kΩ)	Temp.		Thermistor Resistance Nominal (kΩ)
(°C)	(°F)		(°C)	(°F)	
30	86	44.4	60	140	13.7
35	95	35.9	65	149	11.5
40	104	29.3	70	158	9.7
45	113	24.0	75	167	8.2
50	122	19.8	80	176	7.0
55	131	16.4	85	185	6.0
			90	194	5.1

Fig. 34

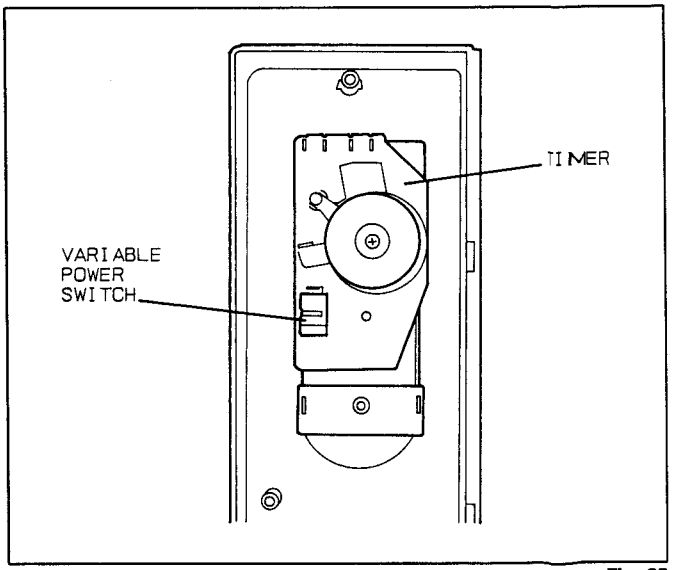


Fig. 35

MEASUREMENTS AND ADJUSTMENTS

WARNING

For continued protection against radiation hazard, replace only with identical replacement parts (Part No. ANE61424L0AG, Type No. V-16G-3C26 for latch switch A and B and Part No. ANE6178-5R0, Type No. L-2C2-MR for short switch).
When the 15 Amp. fuse is blown due to the operation of short switch, you must replace latch switch A and short switch. For U.S.A models, also replace power relay B when the continuity check reads shorted contacts (3-4). Then follow the adjustment procedures below.
Interlock switch replacement — In replacing faulty switches, be sure mounting tabs are not bent, broken or otherwise deficient in their ability to hold the switches.

1. Adjustment of latch switch A, latch switch B and short switch

(A) When mounting latch switch A, latch switch B and short switch to door hook assembly, mount the latch switch A, the latch switch B and the short switch to the door hook assembly as shown in **Fig. 36.**

NOTE: No specific adjustment during installation of latch switch A, latch switch B and short switch to the door hook is necessary.

(B) When mounting the door hook assembly to the oven assembly, adjust the door hook assembly by moving it in the direction of arrow in **Fig. 37** so that the oven door will not have any play in it. Check for play in the door by pulling the door assembly. Make sure that the latch keys move smoothly after adjustment is completed. Completely tighten the screws holding the door hook assembly to the oven assembly.

2. Measurement of microwave output

The power output of the magnetron can be determined by performing a simple water heating test as described below.
Necessary Equipment:
*Two 1 liter beakers *Glass thermometer
*Wrist watch or stopwatch

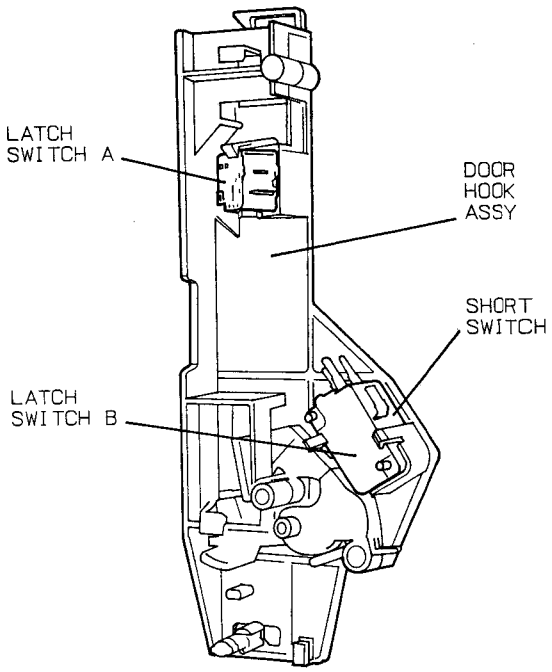
NOTE: Check the line voltage under load. Low voltage will lower the magnetron output. Take the temperature readings and heating time as accurate as possible.

(A) Fill each beaker with exactly one liter of tap water. Stir the water using the thermometer and record each beaker's temperature (recorded as T1A and T1B).
(B) Place both beakers on the center of glass cook plate.
Set the oven for High power and heat it for exactly two minutes.
(C) Stir the water again and read the temperature of each beaker (recorded as T2A and T2B).
(D) Obtain the temperature rise by using the following formula:

$$\text{Average temperature rise} = \frac{(T2A + T2B) - (T1A + T1B)}{2}$$

The normal temperature rise for these models should be 16° to 20°F (8.9° to 11°C) at the "High" power selection with the oven operating at the specified line voltage.
(E) To obtain the power output, multiply the average temperature rise by 39 (or 70 if thermometer is in Celsius).
Example:
If you find average temperature rise of 18°F, the ovens output is
18 X 39 = 702 watts.

NOTE: This test may be conducted by heating one liter of water for one minute if only one beaker is available. In this instance you will find the temperature rise being smaller than the above specifications due to the microwave absorption characteristic. You may judge the magnetron to be normal when the temperature rise is greater than 13.5°F (or 7.5°C).



Please confirm that the gap between the switch housing and switch actuator levers is no more than 1.0mm when the door is closed.

Fig. 36

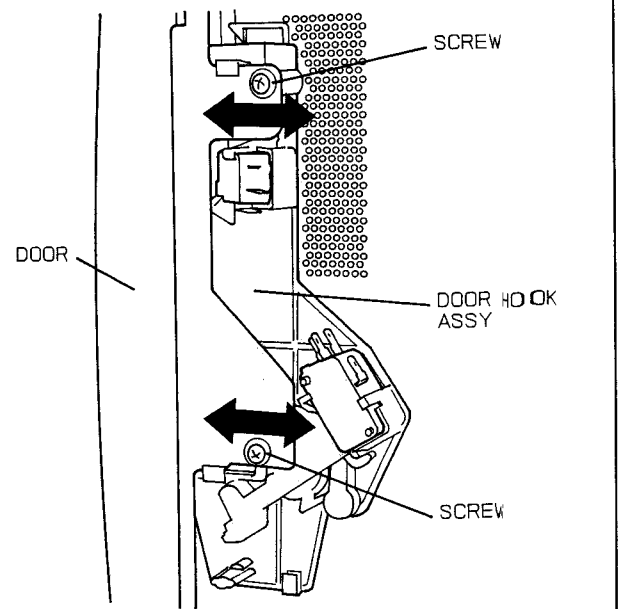


Fig. 37

PROCEDURE FOR MEASURING MICROWAVE ENERGY LEAKAGE

WARNING

Check for radiation leakage after every servicing. Should the leakage be more than 2 mW/cm² (1mW/cm² for Canada) inform the MSC, PHI, PSC, or MELCA immediately. After repairing or replacing any radiation safety device, keep a written record for future reference, as required by D.H.H.S and NHW regulation. This required must be strictly observed. In addition, the leakage reading must be recorded on the service repair ticket while in the customer's home.

NOTE: The U.S. government standard is 5 mW/cm² while in the customer's home. 2mW/cm² stated here is our own voluntary standard. (1mW/cm² for Canada)

1. Equipment

*Electromagnetic radiation monitor
*Glass thermometer 212°F or 100°C
*600cc glass beaker

2. Procedure for measuring radiation leakage.

Note before measuring

(1) Do not exceed meter full scale deflection. Leakage monitor should initially be set to the highest scale.

*(2) To prevent false readings the test probe should be held by the grip portion of the handle only and moved along the shaded area shown in **Fig. 39** no faster than 1 inch/sec (2.5 cm/sec)*

(3) Leakage with the outer panel removed·····less than 5mW/cm²

(4) Leakage for a fully assembled oven with door normally closed····· less than 2mW/cm² (1mW/cm² for Canada)

(5) Leakage for a fully assembled oven [Before the latch switch (primary) is interrupted] while pulling the door ·····less than 2mW/cm²

(A) Pour 275 ± 15cc (9ozs ± 1/2oz) of 20 ±5°C (68 ± 9°F) water in a beaker which is graduated to 600cc, and place the beaker in the center of the oven.

(B) Set the radiation monitor to 2450MHz and use it following the manufacturer's recommended test procedure to assure correct results.

(C) When measuring the leakage, always use the 2 inch (5cm) spacer supplied with the probe.

(D) Tap the start pad or set the timer and with the magnetron oscillating, measure the leakage by holding the probe perpendicular to the surface being measured.

(1) Measurement with the outer panel removed.

Whenever you replace the magnetron, measure for radiation leakage before the outer panel is installed and after all necessary components are replaced or adjusted. Special care should be taken in measuring around the magnetron. **(Fig. 38)**

WARNING

Avoid contacting any high voltage parts.

(2) Measurements with a fully assembled oven. (Fig. 39)

After all components, including the outer panel are fully assembled, measure for radiation leakage around the door periphery, the door viewing window, the exhaust opening and air inlet openings.

3. Record keeping and notification after measurement

(A) After any adjustment or repair to a microwave oven, a leakage reading must be taken. Record this leakage reading on the repair ticket even if it is zero.

A copy of this repair ticket and the microwave leakage reading should be kept by repair facility.

(B) Should the radiation leakage be more than 2 mW/cm² (1mW/cm² for Canada) after determining that all parts are in good condition, functioning properly, and genuine replacement parts as listed in this manual have been used, immediately notify the MSC, PHI, PSC or MELCA.

4. At least once a year, have the radiation monitor checked for calibration by its manufacturer.

WARNING

AVOID CONTACTING ANY HIGH VOLTAGE PARTS.

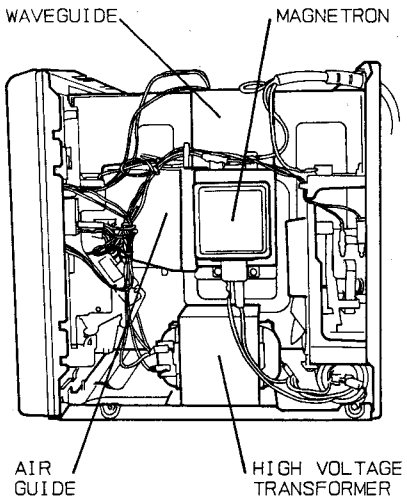
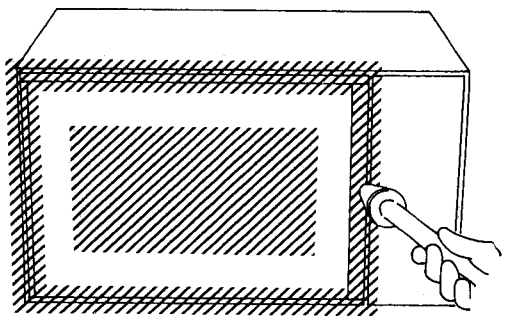


Fig. 38



MOVE PROBE ALONG SHADED AREA (▨) AROUND EXHAUST OPENINGS (as shown) AND AROUND AIR INLET OPENING

Fig. 39

TROUBLESHOOTING GUIDE (NN-6207)

CAUTION

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge the high voltage capacitor. (See page 14)
4. When checking the continuity of the switches or of the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
   When disconnecting a plastic connector from a terminal, you must hold the plastic connector instead of the lead wire and then disconnect it, otherwise lead wire may be open or the connector cannot be removed.

[TROUBLE 1] Oven does not operate at all even though timer is set.

1. 15A fuse blows (U.S.A model)

CHECK	RESULT	CAUSE	REMEDY
Check continuity of short switch with door closed	Continuity	Shorted contacts of short switch	Replace latch switch A (primary), latch switch B (secondary) and short switch
	No continuity		
(Replace 15A fuse)			
Check continuity of both latch switch A's contacts and latch switch B's contacts with door partially open until short switch contacts close	Both continuity	Shorted contacts of latch switch A and B	**NOTE 1: These switches must be replaced at the same time (Refer to page 21 for adjustment instructions.)**
	Both no continuity	Shorted contacts of latch switch A or B and incorrect operation of latch switch A or B	
Disconnect one side of lead wire connected from high voltage transformer to the high voltage capacitor and operate the unit.	Normal	Defective high voltage capacitor	Replace
	15A fuse again blows	Defective high voltage transformer	Replace

1". 15A fuse blows (Canadian model)

CHECK	RESULT	CAUSE	REMEDY
Check continuity of short switch with door closed	Continuity	Shorted contacts of short switch	Replace latch switch A (primary) and short switch
	No continuity		
(Replace 15A fuse)			
Check continuity of latch switch A's contacts with door partially open until short switch contacts close	Continuity	Shorted contacts of latch switch A	**NOTE 1: These switches must be replaced at the same time (Refer to page 21 for adjustment instructions.)**
	No continuity		
Disconnect one side of lead wire connected from high voltage transformer to the high voltage capacitor and operate the unit.	Normal	Defective high voltage capacitor	Replace
	15A fuse again blows	Defective high voltage transformer	Replace

2. Outlet has proper voltage. Fuse is not open. Oven lamp does not turn on.

CHECK	RESULT	CAUSE	REMEDY
Check continuity of timer switch with timer set	No continuity	Defective timer switch	Replace timer (Ref. No. E14)
Check continuity of thermal cutouts (magnetron) and (oven)	No continuity	Defective thermal cutout	Replace
Check continuity of power supply cord	No continuity	Open power supply cord	Replace

3. Oven lamp turns on but fan motor does not.

CHECK	RESULT	CAUSE	REMEDY
Check continuity of latch switch A (U.S.A model)	No continuity	Malfunction of latch switch A	Adjust or replace
	Continuity	Loose connection of latch switch A's wiring	Repair
Check continuity of latch switch B	No continuity	Malfunction of latch switch B	Adjust or replace
	Continuity	Loose connection of latch switch B's wiring	Repair

4. Oven lamp and fan motor turn on.

CHECK	RESULT	CAUSE	REMEDY
Check continuity of vari-power switch (Refer to page 20 for the test procedures of vari-power controller)	Abnormal	Defective vari-power switch	Replace timer with vari-power switch (Ref No. E14)
	Normal	Malfunction of latch switch A (Canadian model)	Adjust or replace
		Open lead wire (Refer to figure WIRING MATERIAL on page 39) **(NOTE 2)**	Replace lead wire (Ref. No. W3) and also magnetron
		Open winding of high voltage transformer or faulty insulation of filament winding **(NOTE 3)**	Replace
		Shorted diode **(NOTE 3)**	Replace
		Faulty magnetron **(NOTE 3)**	Replace

NOTE 2: Unlike previous models, no protector is provided on lead wire W3. When magnetron filament is short-circuited, this W3 lead wire will be burnt and act as a protector. When this lead wire is open, replace together with magnetron.

NOTE 3: Refer to component test procedure on page 19.

[TROUBLE 2] Microwave output is low. First of all, check if output is really low by following "Measurement of microwave output" on page 21.

CHECK	RESULT	CAUSE	REMEDY
Check the power source voltage under operated condition with variable power controller at full power selected	Lower than 105 volts	Decrease in power source voltage	Inform customer of required power voltage
	Normal	Aging change of magnetron	Replace depending on the result of output test

[TROUBLE 3] Oven operates for 1~5 minutes after timer is set, then stops all functions of the oven. (at High power setting) Then about 30~60 minutes later, the oven operates again.

WARNING

A high voltage is generated in the secondary winding of the high voltage transformer and also high voltage circuit, even though fan motor does not rotate. Be very cautious for high voltage when troubleshooting.

CHECK	RESULT	CAUSE	REMEDY
Check if fan motor is rotating	No	※Defective fan motor	Replace
	Yes	Defective thermal cutout (Magnetron)	Replace
		Defective thermal cutout (oven)	Replace
		Surrounding temperature is too high	Install the oven onto proper location

※REASON: During first 1~5 minutes, magnetron is oscillating but fan motor does not rotate, causing heat up of magnetron to open main circuit by magnetron thermal cutout.

TROUBLESHOOTING GUIDE (Touch Control models)

CAUTION

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge high voltage capacitor. (See page 14.)
4. When checking the continuity of the switches or the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
5. Do not touch any parts of the circuitry on the digital programmer circuit since static electric discharge may damage this control panel.
   Always touch yourself to ground while working on this panel to discharge any static charge in your body.
6. A 120V AC is present at the shaded area ▨ of the digital programmer circuit (Terminals of power relays and primary circuit of low voltage transformer) When troubleshooting, be cautious of possible electrical shock hazard.

First of all operate the microwave oven following the correct operating procedures described on pages 33 ~ 37 in order to find the exact cause of any trouble.

[TROUBLE 1] The following visual conditions indicate a probable defective digital programmer circuit (D.P.C.) or membrane key board (membrane switch assembly).

A. In case of following conditions, D.P.C. is defective.

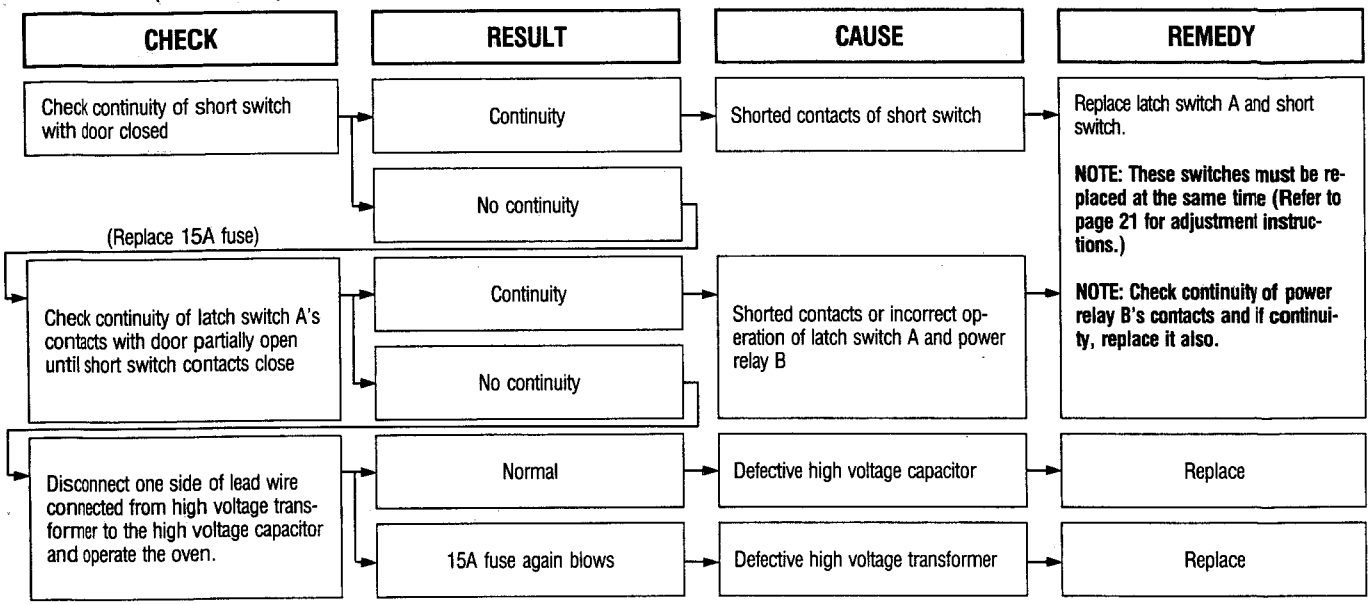
1. Incomplete segments.
   (A) Segments missing.
   (B) Partial segments missing.
   (C) Digit flickering other than normal fluorescent slight flickering.
   (D) Colon does not turn on or does not blink when the clock pad is tapped.
2. A distinct change in the brightness of one or more numbers in the display.
3. One or more digits in the display not on when they should be.
4. Wrong or no power indicator light for power level selected.
5. Specific numbers (for example 2 or 3) will not display.
6. Display does not count down with time cooking or when using display as a timer.
7. Display does not count up with clock operation.
8. Oven is programmable and cooks normally but no display shows.
9. Display obviously jumps in time while counting down or up.
10. Display counts down noticeably too fast while cooking.
11. Display cannot shift from the first stage cooking to the second stage cooking, even though Two Stage Cooking is programmed.
12. Display does not stop counting down with time cooking, even when STOP/RESET Pad is tapped.
13. Time of day does not reappear when cooking is finished.

B. In case of following conditions, either D.P.C. or membrane switch is defective.

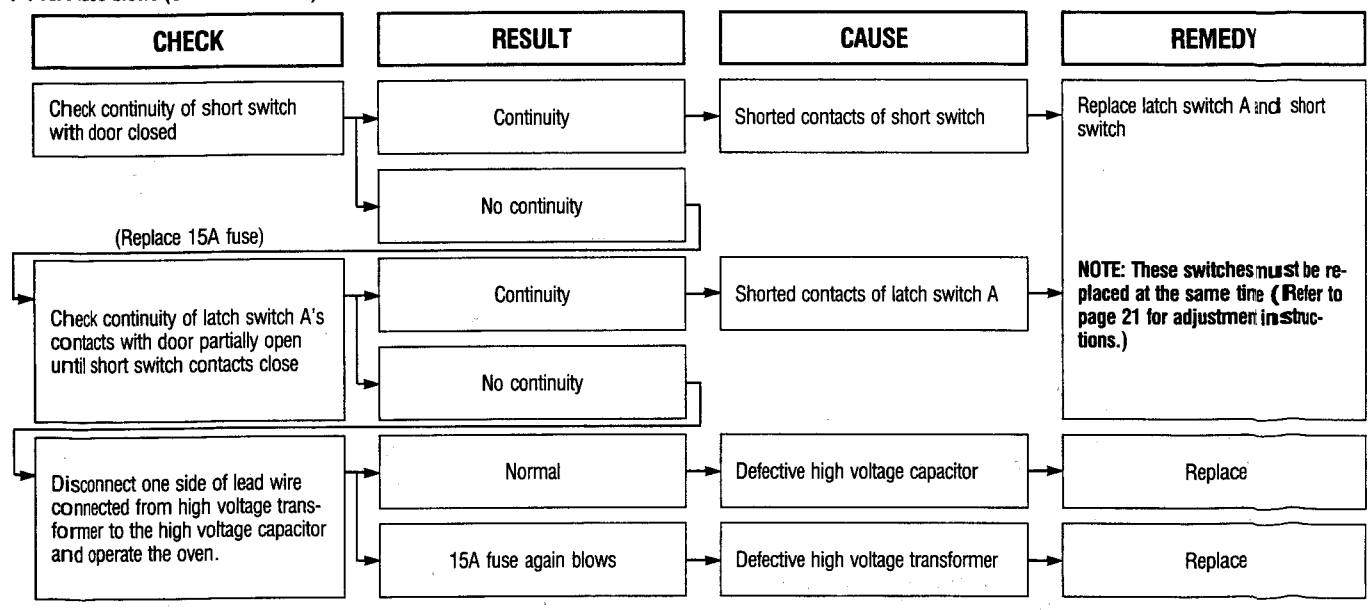
CHECK	RESULT	CAUSE	REMEDY
1. Clock set cannot be programmed at all.			
Check continuity of membrane switch with clock pad tapped. (See **Fig. 32** on page 19.)	No continuity	Defective membrane switch	Replace
	Continuity	Defective DPC	Replace
2. Some inputs cannot be programmed.			
Check continuity of membrane switch (Refer to page 19 for the test procedures of membrane switch)	Some pads have no continuity	Defective membrane switch	Replace
	Normal	Defective DPC	Replace
3. Display indicates a number or figure different from one touched. Random programming when pressing other than touch pads or without pressing any at all. (intermittently)			
Replace membrane switch and recheck	Everythings works as specified	Defective membrane switch	Replace
	Still have trouble	Defective DPC	Replace

[TROUBLE 2] Oven does not operate at all; Display window does not display any figures and no key in of any pads will be accepted.

1. 15A fuse blows (U.S.A models)


CHECK
RESULT
CAUSE
REMEDY
Check continuity of short switch with door closed
Continuity
Shorted contacts of short switch
Replace latch switch A and short switch.
NOTE: These switches must be replaced at the same time (Refer to page 21 for adjustment instructions.)
No continuity
(Replace 15A fuse)
Check continuity of latch switch A's contacts with door partially open until short switch contacts close
Continuity
Shorted contacts or incorrect operation of latch switch A and power relay B
NOTE: Check continuity of power relay B's contacts and if continuity, replace it also.
No continuity
Disconnect one side of lead wire connected from high voltage transformer to the high voltage capacitor and operate the oven.
Normal
Defective high voltage capacitor
Replace
15A fuse again blows
Defective high voltage transformer
Replace

1". 15A fuse blows (Canadian models)


CHECK
RESULT
CAUSE
REMEDY
Check continuity of short switch with door closed
Continuity
Shorted contacts of short switch
Replace latch switch A and short switch
No continuity
(Replace 15A fuse)
Check continuity of latch switch A's contacts with door partially open until short switch contacts close
Continuity
Shorted contacts of latch switch A
NOTE: These switches must be replaced at the same time (Refer to page 21 for adjustment instructions.)
No continuity
Disconnect one side of lead wire connected from high voltage transformer to the high voltage capacitor and operate the oven.
Normal
Defective high voltage capacitor
Replace
15A fuse again blows
Defective high voltage transformer
Replace

2. Outlet has proper voltage. Fuse is not open.

CHECK	RESULT	CAUSE	REMEDY
Check continuity of thermal cutout (magnetron)	No continuity	Defective thermal cutout	Replace
Check continuity of power supply cord	No continuity	Open power supply cord	Replace
Disconnect CN1 connector and check continuity of low voltage transformer (Check between pin no. 1 and 5)	Infinity	Open winding of low voltage transformer	Replace low voltage transformer (on the DPC)
	Approx. 300~500Ω (Normal) (NN-6307/6407/6507/6567/6607)	Defective DPC	Replace
	Approx. 40~60Ω (Normal) (NN-6707/6757/6807)		

[TROUBLE 3] Display shows all figures selected, but oven does not start cooking even though desired program and time are set and start pad is tapped.

1. Oven lamp turns on but fan motor does not.

CHECK	RESULT	CAUSE	REMEDY
Check continuity of latch switch A with door closed.	No continuity	Faulty latch switch A	Replace
		Improper adjustment of latch mechanism	Adjust

2. Oven lamp and fan motor turn on.

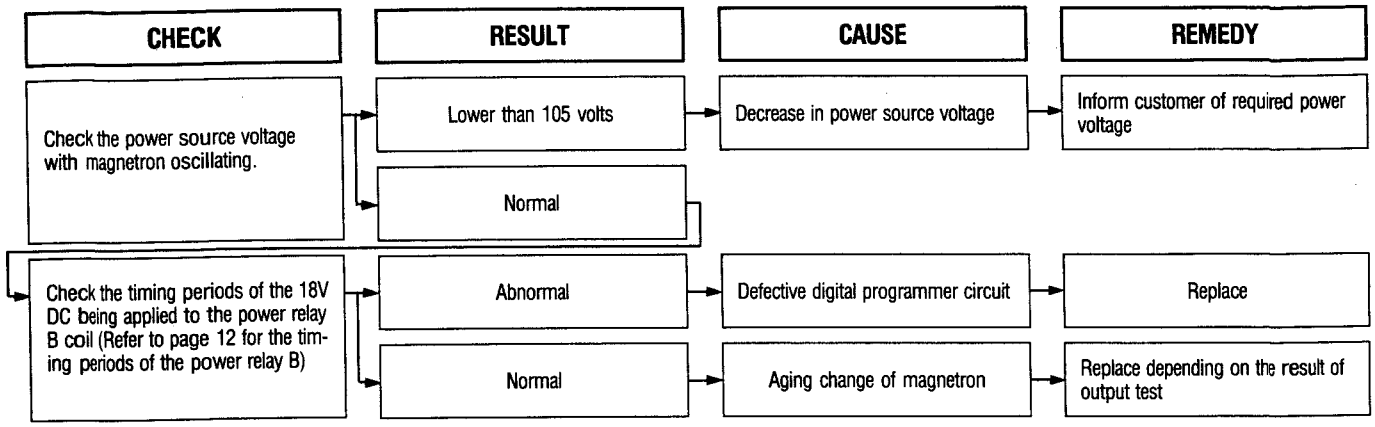
CHECK	RESULT	CAUSE	REMEDY
Check DC voltage being applied to power relay B coil (RY2) **(NOTE 1)**	0 volts	Defective digital programmer circuit	Replace
	Normal	Faulty contacts of power relay B or open relay coil (on the DPC)	Replace
		Open lead wire (Ref. No. W3) (Refer to figure WIRING MATERIAL on page 39) **(NOTE 2)**	Replace lead wire (Ref. No. W3) and also magnetron
		Open winding of high voltage transformer or faulty insulation of filament winding **(NOTE 3)**	Replace
		Shorted diode **(NOTE 3)**	Replace
		Faulty magnetron **(NOTE 3)**	Replace

NOTE 1: Connect DC volt meter between terminals of diode (D2, D3 or D4) for power relay B (RY2) coil.
Set power at High and operate the oven.
Normal digital programmer circuit should read approx. 18V DC continuously.

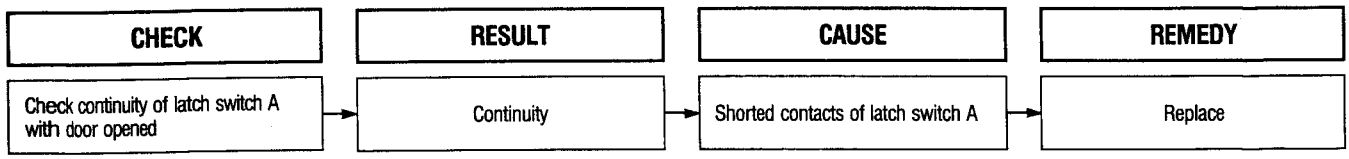
NOTE 2: Unlike previous models, no protector is provided on lead wire W3.
When magnetron filament is short-circuited, this W3 lead wire will be burnt and act as a protector.
When this lead wire is open, replace together with magnetron.

NOTE 3: Refer to component test procedure on page 19

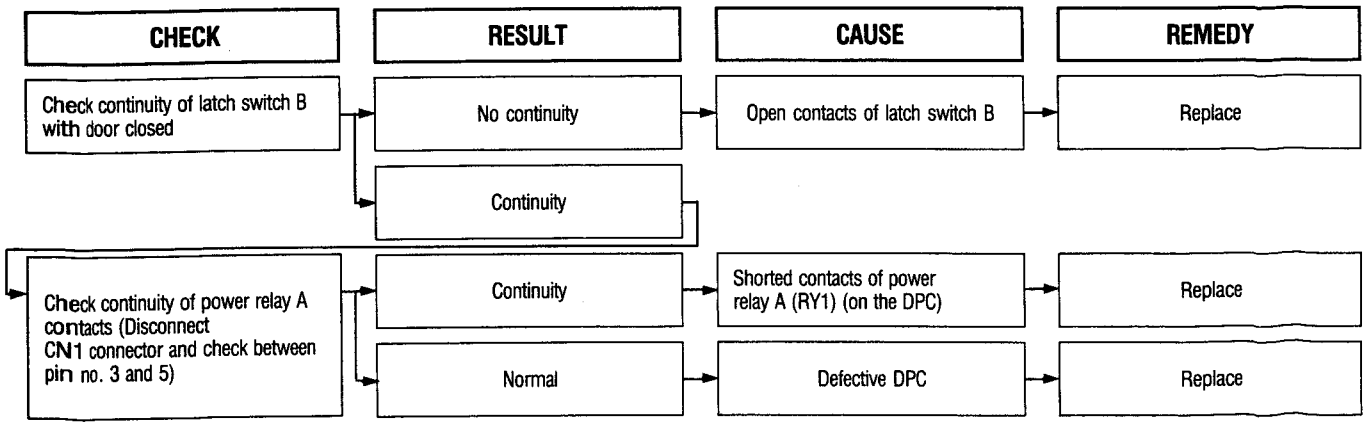
[TROUBLE 4] Microwave output power is low. First of all, check if output is really low by following "Measurement of microwave output" on page 21.


CHECK
RESULT
CAUSE
REMEDY
Check the power source voltage with magnetron oscillating.
Lower than 105 volts
Decrease in power source voltage
Inform customer of required power voltage
Normal
Check the timing periods of the 18V DC being applied to the power relay B coil (Refer to page 12 for the timing periods of the power relay B)
Abnormal
Defective digital programmer circuit
Replace
Normal
Aging change of magnetron
Replace depending on the result of output test

[TROUBLE 5] Oven lamp and fan motor turn on when door is opened. (U.S.A models)



[TROUBLE 6] Oven lamp and fan motor turn on when power supply cord is plugged into wall receptacle.



[TROUBLE 7] Magnetron oscillates for 1 ~ 5 minutes after start pad is tapped, then stops all functions of the oven. (Oven lamp and fan motor do not turn on.)

REASON: During first 1 ~ 5 minutes, magnetron is oscillating but fan motor does not rotate, causing heat up of magnetron to open main circuit by magnetron thermal cutout.

WARNING

A high voltage is generated in the secondary winding of the high voltage transformer and also high voltage circuit, even though fan motor does not rotate. Be very cautious for high voltage when troubleshooting.

CHECK	RESULT	CAUSE	REMEDY
Check DC voltage being applied to power relay A coil (NOTE 2)	Approx. 18V DC	Faulty contacts of power relay A or open relay coil	Replace power relay A (RY1) (on the DPC)
	0 volts	Defective DPC	Replace

NOTE 4: Follow the test procedures as below:
(A) Unplug the oven power cord.
(B) Remove the DPC according to the procedure in paragraph 2.
(C) Reconnect CN1 and CN3 connectors to the DPC.
(D) Disconnect 2 lead wires connected to the high voltage transformer primary side, and isolate them.
(E) Plug in the oven power cord.
(F) Open the door.
(G) Connect DC volt meter between power relay A (RY1) coil terminals on the D.P.C.
(H) Check DC voltage being applied to the power relay A coil with door opened.

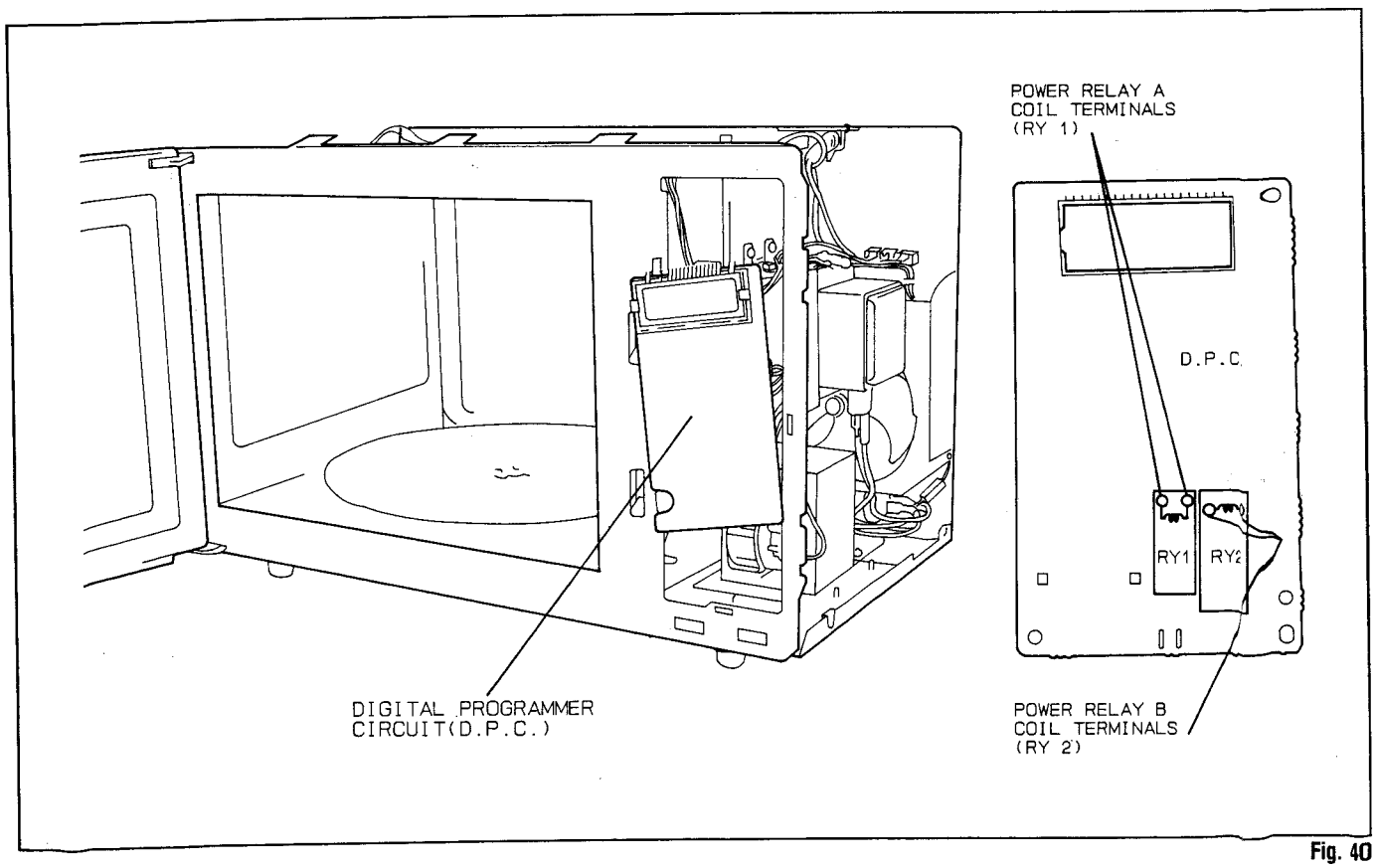
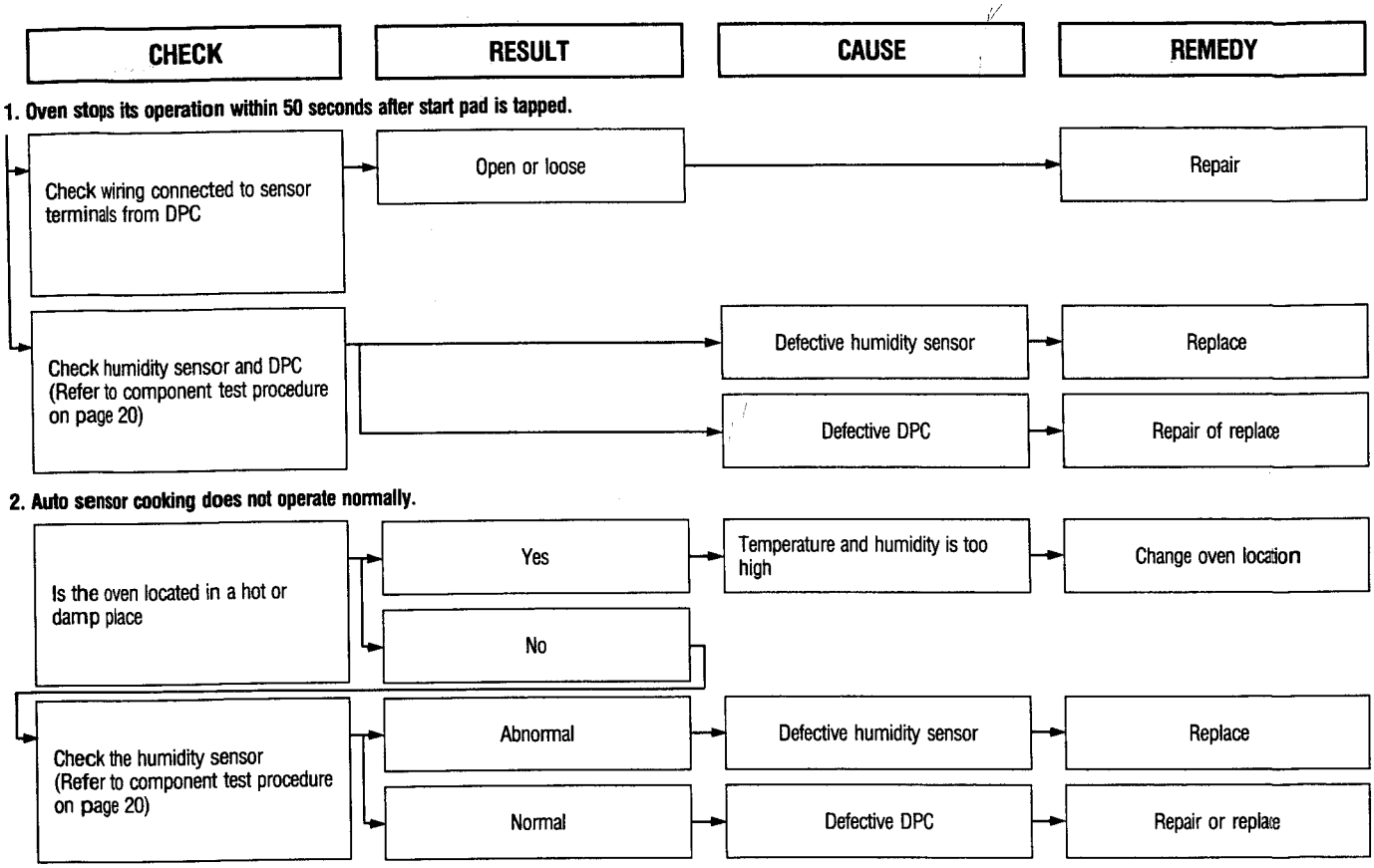


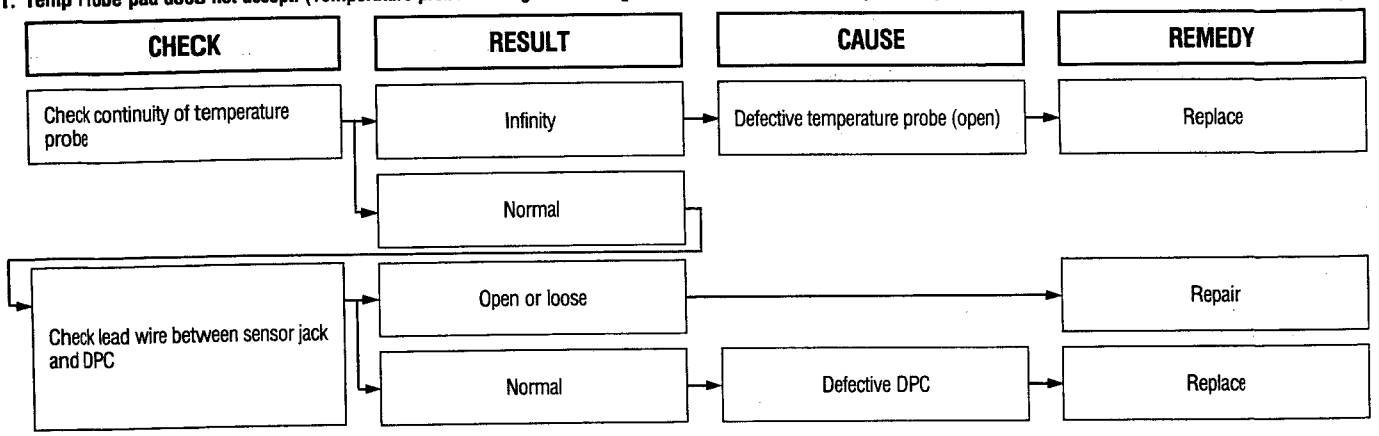
Fig. 40

[TROUBLE 8] Microwave oven does not operate normally, when auto sensor cooking is selected. (NN-6707/6757/6807)

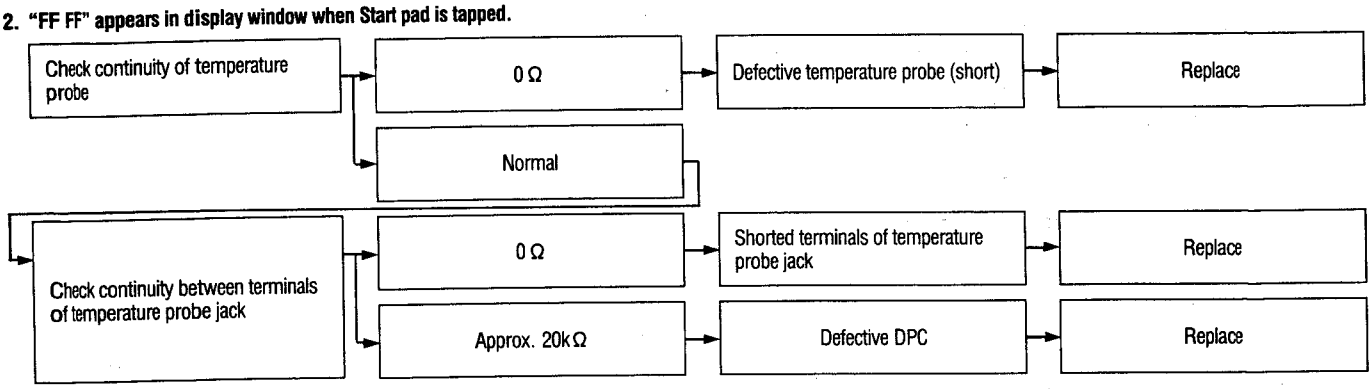

CHECK
RESULT
CAUSE
REMEDY
1. Oven stops its operation within 50 seconds after start pad is tapped.
Check wiring connected to sensor terminals from DPC
Open or loose
Repair
Check humidity sensor and DPC (Refer to component test procedure on page 20)
Defective humidity sensor
Replace
Defective DPC
Repair of replace
2. Auto sensor cooking does not operate normally.
Is the oven located in a hot or damp place
Yes
Temperature and humidity is too high
Change oven location
No
Check the humidity sensor (Refer to component test procedure on page 20)
Abnormal
Defective humidity sensor
Replace
Normal
Defective DPC
Repair or replace

[TROUBLE 9] Microwave oven does not operate normally when using temperature probe. (NN-6607)

1. Temp Probe pad does not accept. (Temperature probe cooking indicator light does not turn on when temperature probe is connected into sensor jack.)

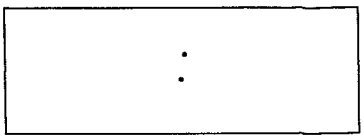
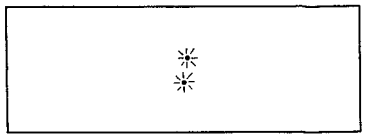
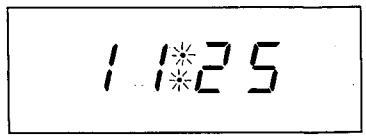
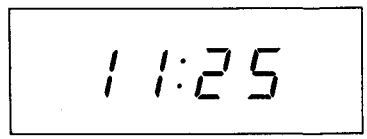


2. "FF FF" appears in display window when Start pad is tapped.

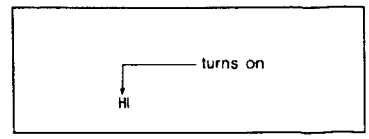
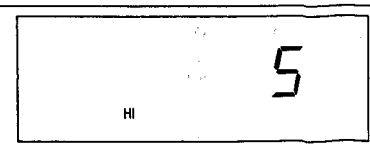
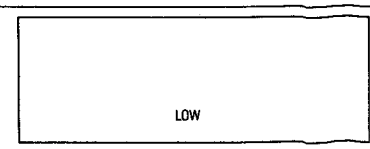
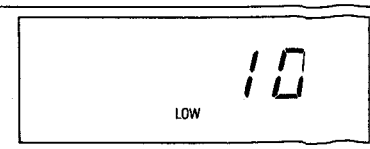
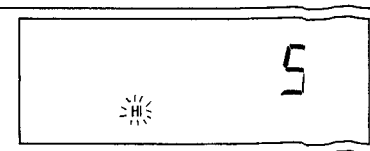


DIGITAL PROGRAMMER CIRCUIT TEST PROCEDURE

1. To Set Clock

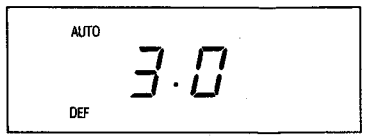
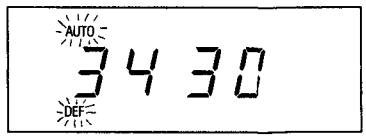
STEP	OPERATION	FUNCTION	DISPLAY
1	Plug the power supply cord into wall receptacle.	• Colon turns on.	
2	Tap Clock Pad	• Colon starts blinking.	
3	Enter time of day (TOD) by tapping appropriate number pads. Example: To Set 11:25 • Tap 10 min pad once • Tap 1 min pad once • Tap 10 sec pad twice • Tap 1 sec pad 5 times	• "11:25" appears in the display window. • Colon keeps blinking.	
4	Tap Clock Pad	• Colon stops blinking and stays on. • TOD has now been registered into the digital programmer circuit and will count up by minutes.	

2. Time Cooking (Two Stage Cooking)

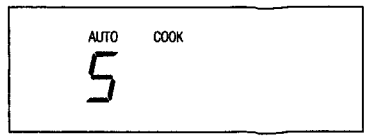
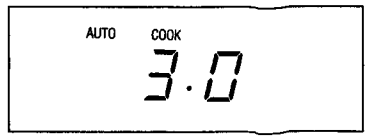
STEP	OPERATION	FUNCTION	DISPLAY
1	Place a water load in the oven		
2	Tap Power Pad once for High power (1st stage)	• Clock time disappears. • High power indicator light turns on.	
3	Set for 5 seconds by tapping Number Pad	• Cooking time "5" appears in the display window.	
4	Tap Power Pad four times for Low power (2nd stage)	• First stage cooking time "5" and High power indicator light disappear. • Low power indicator light turns on.	
5	Set for 10 seconds by tapping Number Pad	• Cooking time "10" appears in the display window.	
6	Tap Start Pad	• Second stage cooking time "10" and Low power indicator light disappear. • First stage cooking time "5" appears and counts down. • High power indicator light appears and starts blinking. • Oven lamp and fan motor turn on. • Microwave activity starts.	

STEP	OPERATION	FUNCTION	DISPLAY
7		When first stage cooking time has elapsed: • Oven automatically switches to second stage cooking. • Second stage cooking time "10" appears and counts down. • Low power indicator light appears and starts blinking.	
8		When second stage cooking time has elapsed: • Oven beeps five times and shuts off. • TOD reappears in the display window.	

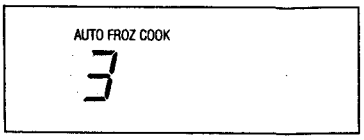
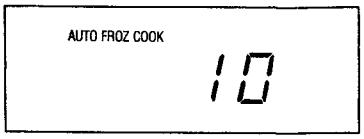
3. Auto Weight Defrost

STEP	OPERATION	FUNCTION	DISPLAY
1	Tap Auto Weight Defrost Pad (NN-6507/NN-6567)	• Clock time disappears. • "0.0" appears in the display window. • Auto Weight Defrost indicator light turn on.	
2	Set the weight for 3 pounds by tapping 1.0(lb) pad three times.	• Selected weight "3.0" appears in the display window.	
3	Tap Start Pad	• "3.0" disappears and defrosting time "34 30" appears and counts down. • Auto Weight Defrost indicator lights start blinking. • Oven lamp and fan motor turn on. • Microwave activity starts.	
4	Tap Stop/Reset Pad twice	• Oven shuts off. • TOD reappears in the display window.	

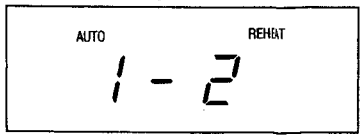
4. Auto Weight Cook

STEP	OPERATION	FUNCTION	DISPLAY
1	Tap Auto Weight Cook Pad five times.	• Clock time disappears. • Category number "5" appears in the display window. • Auto Weight Cook indicator lights turn on.	
2	Set the Weight for 3 pounds by tapping 1.0 (lb) Pad six times.	• Category number "5" disappears. • Selected weight "3.0" appears in the display window.	
3	Tap Start Pad.	• Weight "3.0" disappears and cooking time "44 00" appears and counts down. • Auto Weight Cook indicator lights start blinking. • Oven lamp and fan motor turn on. • Microwave activity starts.	
4	Tap Stop/Reset Pad twice	• Oven shuts off. • TOD reappears in the display window.	

5. Auto Weight Frozen Cook

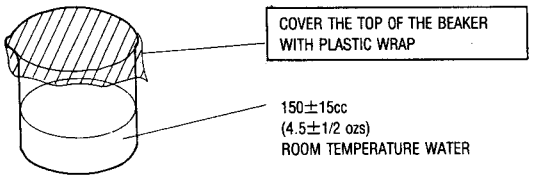
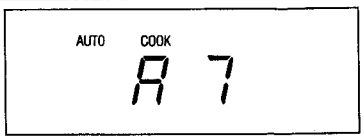
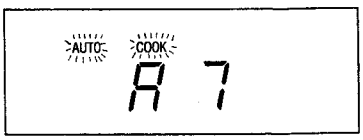
STEP	OPERATION	FUNCTION	DISPLAY
1	Tap Auto Weight Frozen Cook Pad three times.	• Clock time disappears. • Category number "3" appears in the display window. • Auto Weight Frozen Cook indicator lights turn on.	
2	Set the weight for 10 ounces by tapping 10(oz) Pad once.	• Category number "3" disappears. • Selected weight "10" appears in the display window.	
3	Tap Start Pad	• Weight "10" disappears and cooking time "9 00" appears and counts down. • Auto Weight Frozen Cook indicator lights start blinking. • Oven lamp and fan motor turn on. • Microwave activity starts.	
4	Tap Stop/Reset Pad twice	• Oven shuts off. • TOD reappears in the display window.	

6. Auto Reheat

STEP	OPERATION	FUNCTION	DISPLAY
1	Tap Auto Reheat 1 Pad twice.	• Clock time disappears. • Category number and serving number "1-2" appear in the display window. • Auto Reheat indicator lights turn on.	
2	Tap Start Pad	• Category number and serving number disappear. • Cooking time "25" appears and counts down. • Auto Reheat indicator lights start blinking. • Oven lamp and fan motor turn on. • Microwave activity starts.	
3		When cooking time has elapsed: • Oven beeps five times and shuts off. • TOD reappears in the display window.	

7. Auto Sensor Cooking

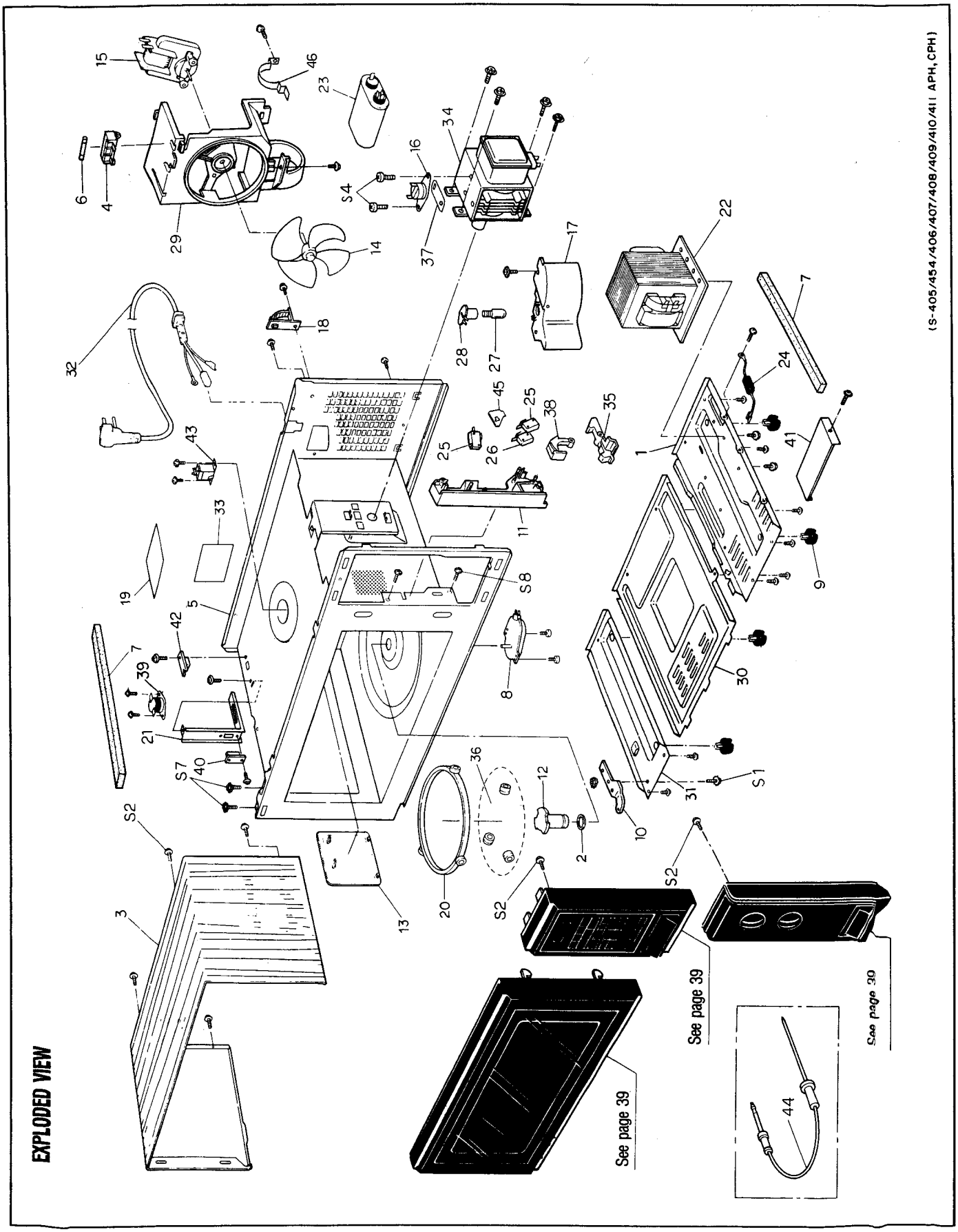
NOTE: Make sure that the outer panel is installed before Auto Sensor Cooking Test, since Auto Sensor function does not operate properly without the outer panel.

STEP	OPERATION	FUNCTION	DISPLAY
1	Pour 150±15cc (4.5±1/2 ozs) of room temperature water in a beaker, securely cover the top of the beaker with plastic wrap and place the beaker in the center of the oven.		
2	Tap Auto Sensot Cook Pad seven times.	• Clock time disappears. • "A7" appears in the display window. • Auto Sensor Cook indicator light turn on.	
3	Tap Start Pad	• Auto Sensor Cook indicator lights start blinking. • Oven lamp and fan motor turn on. • Oven lamp will dime a little, about 50 seconds after Start Pad is tapped. This indicates that magnetron has started oscillation.	
4		When the humidity sensor detects steam about 3 to 5 minutes after the Start Pad is tapped: • Auto Sensor Cooking (T1) automatically switches to time cooking (T2). • "A7" disappears and balance of cooking time "200~400" appears in the display window and counts down. **NOTE: Cooking time will vary depending on the water temperature, the shape of beaker or the power source voltage.**	
5	Tap Stop/Reset Pad twice	• Oven beeps five times and shuts off. • Auto Sensor Cooking indicator lights turn off. • TOD reappears in the display window.	

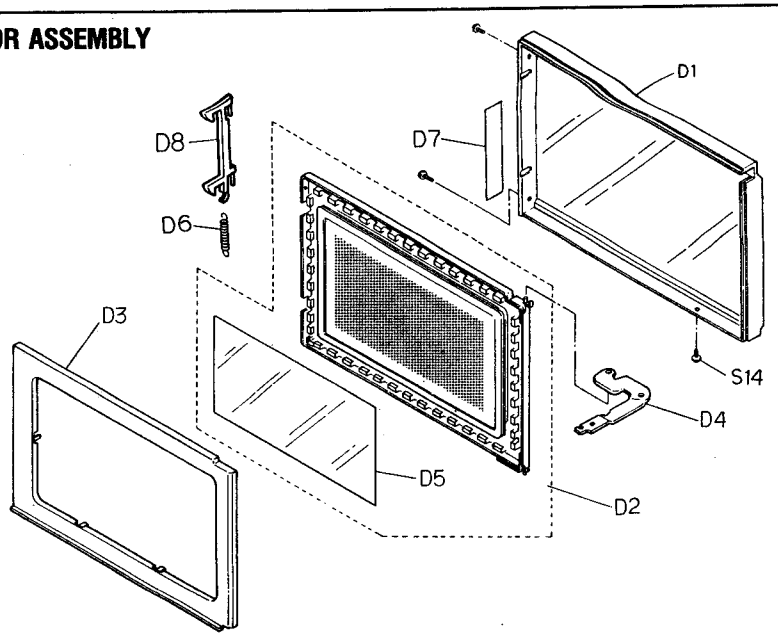
8. Temperature Probe Cooking

STEP	OPERATION	FUNCTION	DISPLAY
1	Remove hot water load and replace with a cold water load. Put sensor probe into the water load and connect the sensor probe jack into its receptacle. **NOTE: Sensor probe must be put into water more than one inch.**	• Temperature Probe Cooking indicator lights turn on.	TEMP
2	Tap Power Pad once	• Clock time disappears. • High power indicator light turns on.	TEMP HI
3	Tap Temp Probe Pad three times	• Selected temperature "120F" appears in the display window.	TEMP 120F HI
4	Tap Start Pad	• High power indicator light starts blinking. • Oven lamp and fan motor turn on. • Microwave activity starts. • Current temperature of water is displayed in rising 5℉ increments starting at 90℉. **NOTE: If starting temperature is lower than 90°F, "L90F" (meaning lower than 90°F) will be displayed until water temperature reaches 90°F.**	TEMP L90F HI
5		When water temperature is reached to 120℉: • Oven beeps five times and shuts off. • TOD reappears in the display window.	
6	Measure the water temperature by placing the thermometer in the cup right next to the probe. In this manner they will both sense the same exact temperature.The allowable temperature range is 120℉±11℉.		
7	Remove the temperature probe from oven the receptacle.	• Temperature Probe Cooking indicator light turns off.	

EXPLODED VIEW AND PARTS LIST

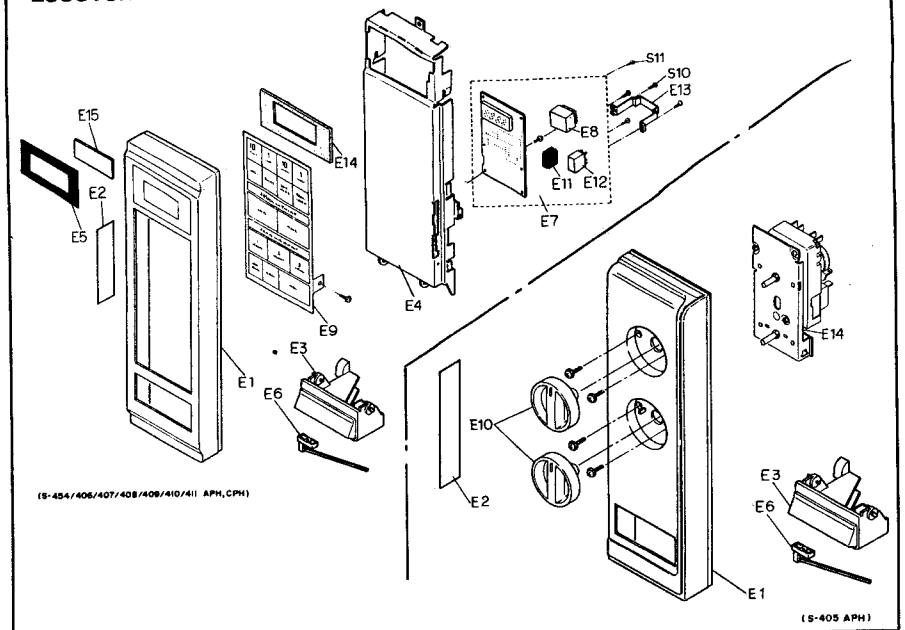


DOOR ASSEMBLY

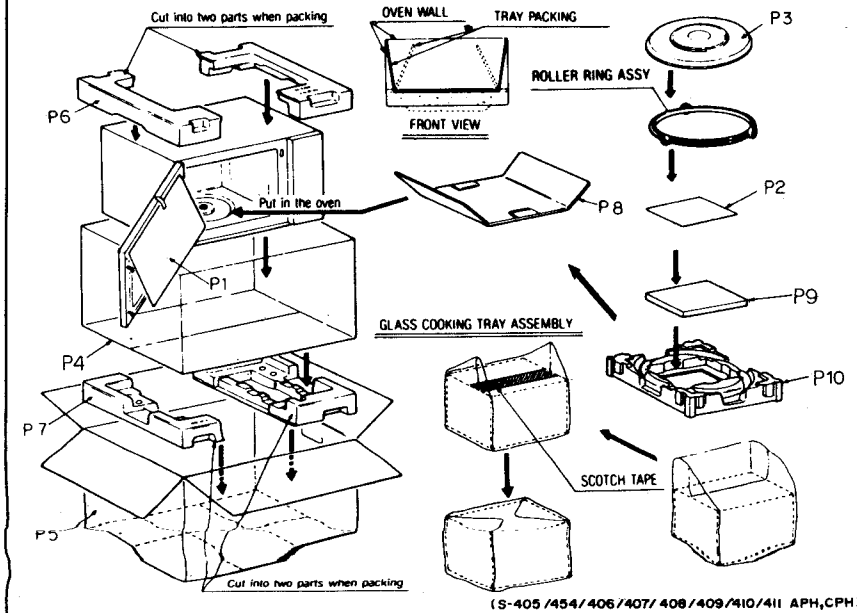


(S-405/454/406/407/408/409/410/411 APH, CPH)

ESCUTCHEON BASE ASSEMBLY

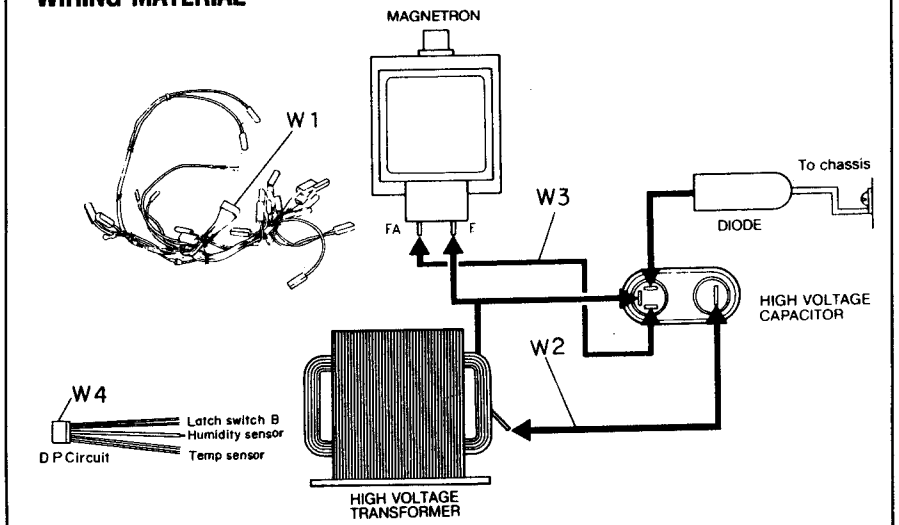


PACKING AND ACCESSORIES



(S-405/454/406/407/408/409/410/411 APH, CPH)

WIRING MATERIAL



(S-405/454/406/407/408/409/410/411 APH, CPH)

PARTS LIST

NOTE 1: When ordering replacement part(s), please use part number(s) shown in this parts list. Do not use description of the part.
2: Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
3: Alphabet marks in Remarks columns (i.e. APH, etc) indicate parts applicable to only specified country models as follows.
APH: For U.S.A. and some of Latin America countries, CPH: For Canada
Parts without these marks can be used for all models.

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
1		A10014060AP	Base	1	
2		ANE2177-F80	Washer	1	
3		A10094060AP	Outer panel	1	NN-6207, NN-6307, NN-6407, NN-6507, NN-6607, NN-6707, NN-6807
		A10094060CP	Outer panel	1	NN-6567, NN-6757
4		A62314000AP	Fuse holder	1	
5	⚠	A200A4060AP	Oven	1	NN-6207, NN-6307, NN-6407, NN-6567, NN-6507, NN-6707, NN-6757, NN-6807
	⚠	A200A4090AP	Oven	1	NN-6607
6		ANE6230B00AP	Fuse	1	(15A)
7		ANE000Z000AA	Cushion rubber A	2	
8		ANE6326L90AP	Turntable motor	1	(2W)
9		ANE1008-3W0	Rubber foot	4	
10	⚠	A30074000AP	Lower hinge	1	
11	⚠	A30204000AP	Door hook A	1	
12		A21314000AP	Pulley shaft	1	
13		A20554000AP	Cover A	1	
14		ANE40086W0AP	Fan	1	
15		A400A4000AP	Fan motor	1	
16		A61454000AP	Thermal cutout	1	For Magnetron
17		A40254000AP	Air guide A	1	
18		ANE11408A0AG	Stopper A	1	
19		A00334000AP	Fuse label	1	
20		A290D4060AP	Roller ring assy	1	
21		A40244030AP	Exhaust guide A	1	NN-6707, NN-6757
22	⚠	A600B4000AP	H.V.Transformer	1	
23	⚠	A60904010AP	H.V.Capacitor	1	(0.935μF, AC2000V)
24	⚠	A62024000AP	Diode	1	(Si)
25	⚠	ANE61424L0AG	Switch	2	Latch switch A, B (V-16G-3C26)
26	⚠	ANE6178-5R0	Switch	1	Short switch (L-2C2-MR)
27		ANE6030540AP	Oven lamp	1	(125V, 20W)
28		ANE6152110AG	Oven lamp socket	1	
29		A41444060AP	Orifice	1	
30		A10264060AP	Base C	1	
31		A11294060AP	Base B	1	
32		A900C4000AP	Power supply cord	1	Except Canada
		A900C4000CP	Power supply cord	1	Canada
33		A00064000AP	Warning label	1	Except Canada
		ANE0006R30CP	Warning label	1	Canada
34	⚠	2M210-M1	Magnetron	1	
35		A31374000AP	Hook spacer B	1	
36		A202K4130AP	Roller B assy	1	NOTE 4
37		ANE62388A0AG	Spacer	1	
38		A31384000AP	Hook spacer C	1	
39		A61454050AP	Thermal cutout	1	For Oven NN-6207
40		A601L4030AP	Humidity sensor	1	NN-6707, NN-6757
41		A11264000CP	Base metal	1	Canada
42		A601L4000AP	Temp sensor	1	NN-6307, NN-6407, NN-6567, NN-6507, NN-6607, NN-6707, NN-6757, NN-6807 (Thermal protector)
43		ANE601KX00AP	Sensor jack unit	1	NN-6607
44		ANE601LG00AP	Sensor probe	1	NN-6607
45		A63064000AP	Insulation sheet R	1	
46		A61884060AP	Capacitor bracket	1	
		ANE0887L10AP	Cavity spray paint	1	Spray can, For repair of painted oven cavity
		ANE0887970AP	Touch-up paint	1	Bottle with brush, For repair of painted oven cavity

NOTE 4: When ordering the roller B assy, three rollers will be shipped.
When replacing the roller B, three rollers should be replaced at the same time.
Otherwise the glass cooking tray may not turn smoothly.

DOOR ASSEMBLY

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
D1	⚠	A30014060AP	Door A	1	NN-6207, NN-6307, NN-6407 NOTE 5
	⚠	A30014080AP	Door A	1	NN-6567, NN-6507, NN-6607 NOTE 5
	⚠	A30014100AP	Door A	1	NN-6707, NN-6757, NN-6807 NOTE 5
D2	⚠	A301Q4060AP	Door E assy	1	
D3	⚠	A30854060AP	Door C	1	
D4	⚠	A30064000AP	Upper hinge	1	
D5	⚠	A31454060AP	Door screen A	1	
D6		A30214000AP	Door key spring	1	
D7		ANE0245X00AP	DHHS label	1	Except Canada
		ANE0411K20CP	CSA label	1	Canada
D8		A30184000AP	Door key A	1	

NOTE 5: Please order DHHS label or CSA label together.

ESCUTCHEON BASE ASSEMBLY

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
E1		A80344050AP	Escutcheon base	1	NN-6207 NOTE 6
		A80344060AP	Escutcheon base	1	NN-6307, NN-6407 NOTE 6
		A80344000AP	Escutcheon base	1	NN-6567, NN-6507, NN-6607, NN-6707, NN-6757, NN-6807 NOTE 6
E2		A00074050AP	Name plate	1	NN-6207
		A00074540AP	Name plate	1	NN-6307
		A00074060AP	Name plate	1	NN-6407 APH
		A00074080AP	Name plate	1	NN-6507 APH
		A00074090AP	Name plate	1	NN-6607
		A00074100AP	Name plate	1	NN-6707 APH
		A00074110AP	Name plate	1	NN-6807 APH
E3		A80724000AP	Door opening button	1	
E4		A81274000AP	Bracket	1	NN-6307, NN-6407, NN-6567, NN-6507, NN-6607
		A800X4030AP	Bracket	1	NN-6707, NN-6757, NN-6807
E5		A80014000AP	Escutcheon A	1	NN-6307, NN-6407
		A80014010AP	Escutcheon A	1	NN-6567, NN-6507, NN-6607, NN-6707, NN-6757, NN-6807
E6		A82564000AP	Door opening lever B	1	
E7		A603L4060AP	D.P.Circuit assy	1	NN-6307, NN-6407 (W/Component)
		A603L4080AP	D.P.Circuit assy	1	NN-6567, NN-6507 (W/Component)
		A603L4090AP	D.P.Circuit assy	1	NN-6607 (W/Component)
		A603L4100AP	D.P.Circuit assy	1	NN-6707, NN-6757, NN-6807 (W/Component)
E8		A62494000AP	L.V.Transformer	1	NN-6307, NN-6407 (ETP35K136A)
		A62494010AP	L.V.Transformer	1	NN-6567, NN-6507, NN-6607 (ETP35K135A)
		A62494030AP	L.V.Transformer	1	NN-6707, NN-6757, NN-6807 (ETP43K42A)
E9		A64794540AP	Membrane switch	1	NN-6307
		A64794000AP	Membrane switch	1	NN-6407
		A64794070CP	Membrane switch	1	NN-6567
		A64794010AP	Membrane switch	1	NN-6507
		A64794090AP	Membrane switch	1	NN-6607
		A64794030AP	Membrane switch	1	NN-6707, NN-6757
		A64794110AP	Membrane switch	1	NN-6807
E10		A800D4050AP	Timer knob	2	NN-6207
E11		AEG5R51T18A	Power relay	1	(G5R5-A) (RY1) NN-6307, NN-6407, NN-6567, NN-6507, NN-6607, NN-6707, NN-6757, NN-6807
E12		AEG5WA1ER18	Power relay	1	(G5W-A) (RY2) NN-6307, NN-6407, NN-6567, NN-6507, NN-6607, NN-6707, NN-6757, NN-6807
E13		A65514030AP	L.V.T.Support bracket	1	NN-6707, NN-6757, NN-6807
E14		A60014050AP	Timer	1	NN-6207

NOTE 6: Please order name plate together.

PACKING AND ACCESSORIES

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
P1		A01074060AP	Door sheet	1	
P2		A00034000AP	Instruction book	1	NN-6207, NN-6307, NN-6407 APH
		A00034000CP	Instruction book	1	NN-6407 CPH
		A00034010AP	Instruction book	1	NN-6507 APH
		A00034010CP	Instruction book	1	NN-6567/NN-6507 CPH
		A00034090AP	Instruction book	1	NN-6607
		A00034030AP	Instruction book	1	NN-6707/NN-6807 APH
		A00034030CP	Instruction book	1	NN-6707/NN-6757/ NN-6807 CPH
P3		ANE06012Q0AP	Glass cooking tray	1	
P4		A01064060AP	Vinyl cover	1	
P5		A01024050AP	Outer case	1	NN-6207
		A01024540AP	Outer case	1	NN-6307
		A01024060AP	Outer case	1	NN-6407 APH
		A01024060CP	Outer case	1	NN-6407 CPH
		A01024070CP	Outer case	1	NN-6567
		A01024080AP	Outer case	1	NN-6507 APH
		A01024080CP	Outer case	1	NN-6507 CPH
		A01024090AP	Outer case	1	NN-6607
		A01024100AP	Outer case	1	NN-6707 APH
		A01024100CP	Outer case	1	NN-6707 CPH
		A01024100HCP	Outer case	1	NN-6757
		A01024110AP	Outer case	1	NN-6807 APH
		A01024110CP	Outer case	1	NN-6807 CPH
P6		A01044060AP	Upper filler	1	
P7		A01054060AP	Lower filler	1	
P8		A01084060AP	Tray packing	1	
P9		A000B4000AP	Cook book	1	NN-6207, NN-6307, NN-6607 NN-6407/NN-6507 APH
		A000B4000CP	Cook book	1	Canada
		A000B4030AP	Cook book	1	NN-6707/NN-6807 APH
P10		A01134060AP	Tray styrol	1	

WIRING MATERIAL

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
W1		A030A4050AP	Lead wire harness	1	NN-6207
		A030A4060AP	Lead wire harness	1	NN-6307, NN-6607 NN-6407/NN-6507/NN-6707/ NN-6807 APH
		A080A4060CP	Lead wire harness	1	Canada
W2		A03504000AP	Lead wire	1	
W3		A03514000AP	Lead wire	1	NOTE 7
W4		A03534060AP	Lead wire	1	NN-6307, NN-6407, NN-6567, NN-6507
		A03534090AP	Lead wire	1	NN-6607
		A03534100AP	Lead wire	1	NN-6707, NN-6757, NN-6807

NOTE 7: When this lead wire is open, replace together with magnetron.

STANDARD PARTS

Ref. No.		Part No.	Description	Size (mm)	Q'ty	Usage
S1		XTWANE4+12B	Screw	4X12	2	Lower hinge Capacitor bracket
S2		XTWANE4+12D	Screw	4X12	1	Escutcheon base
					1	Stopper A
					3	H.V.Transformer
					4	Outer panel
					2	Base B
					4	Base
					2	Base C
					2	Orifice
S3		XTEANE4+8BU	Screw	4X8	4	Magnetron
S4		XTEANE3+6B	Screw	3X6	2	Thermal cutout
S5		XTBANE4+8FE	Screw	4X8	2	Fan motor
S6		XYF4+AF6	Screw	4X6	1	Air guide A
S7		XTWANE4+8S	Screw	4X8	2	Upper hinge
S8		XTW4+12T	Screw	4X12	2	Door hook A
S9		XTNANE3+6B	Screw	3X6	2	Sensor jack unit
S10		XTNANE3+12B	Screw	3X12	2	L.V.T.Support bracket (NN-6707, NN-6757, NN-6807)
S11		XTWANE3+8B	Screw	3X8	3	D.P.Circuit
					1	Membrane switch ground
					1	Diode ground
					1	Exhaust guide A
					2	Turntable motor
					1	Temp sensor
					1	Base metal (Canada)
S12		XTNANE4+8B	Screw	4X8	2	Thermal cutout
S13		XYD4+EE12F	Screw	4X12	1	Oven
					1	Power supply cord ground
S14		XTBANE3+8BZ	Screw	3X8	3	Door A

MEMO

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ORDER NO. CAD88110108S2

5200

Serviceanleitung

Ergänzung

Mikrowellenherd

NN-6807, NN-6857, NN-6507, NN-6557
NN-6307, NN-6357, NN-6207, NN-6257
NN-6807B, NN-6857B, NN-6507B, NN-6557B
NN-6307B, NN-6357B, NN-6207B, NN-6257B

Diese Ergänzung ist in Verbindung mit der Serviceanleitung für das Modell NN-6807 u.s.w. (ORDER NO. MOD87080832C2) und Ergänzung Serviceanleitung für das Modell NN-6807B u.s.w. (ORDER NO. CAD88030048S2) zu verwenden.

Gegenstand: Änderung der Ersatzteilliste

Grund der Änderung	
1. Verbesserte Ausführung	
2. Änderung von Material oder der Größe	
3. Zur Erreichung der geforderten Spezifikationen	
4. Standardisierung	
5. Ergänzung	
6. Streichung	
7. Korrektur	
8. Sonstiges	

Kompatibilitäts-Code		
	Teile / Geräteproduktion	
A	Original → Früher, Neu → Später	Originale oder neue Teile können in früher oder später produzierten Geräten verwendet werden. Verbrauchen Sie erst die Original-teile und bestellen Sie dann die neuen Teile.
B	Original → Früher, Neu → Später	Originalteile können nur für früher produzierte Geräte verwendet werden. Neue Teile können für frühere oder spätere Geräte benutzt werden. Verbrauchen Sie, wenn möglich, Originalteile und bestellen Sie neue Teile.
C	Original → Früher, Neu → Später	Neue Teile für früher oder später produzierte Geräte verwenden. Bestellen Sie nur neue Teile.
D	Original → Früher, Neu → Später	Originalteile für früher und neue Teile für später produzierte Geräte. Lagern Sie Original-und Neuteile.
E	Sonstiges	

Teile-Nummern

Pos. Nr.	Original ET-Nr.	Neue ET-Nr.	Teile-Bezeichnung Beschreibung	Kompa.-Code	Änderungs-grund	Bemerk.
2	ANE2177-F80	A21774080BP	U-Scheibe	C	1	Anmerkung
20	A290D4060AP	A290D4080SS	Ring f. Rolle kpl.	C	1	
36	A202K4130AP	A202K4080BP	Rolle B kpl.	C	1	Anmerkung
P3	ANE06012Q0AP	A06014080BP	Glasplatte	C	1	Anmerkung

Anmerkung: Diese Änderungen sind bereits in der Ergänzung zur Serviceanleitung des Modells NN-6807 etc. enthalten (Order-Nr. CAD88060068S2).

Panasonic

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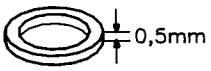
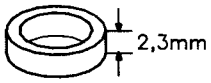
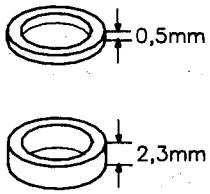
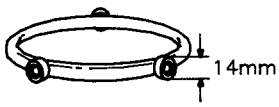
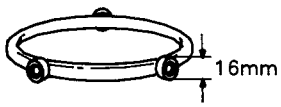
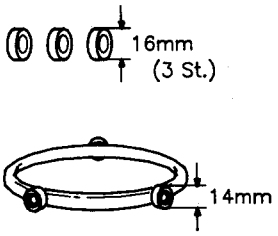
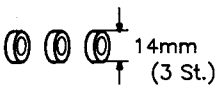
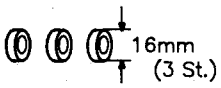
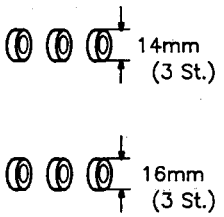
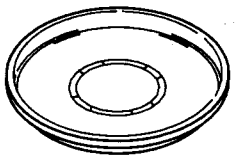
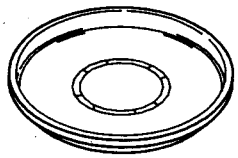
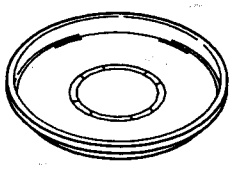
S-411GP G, etc
Printed in Japan
(K & E)

Einbauanleitung

Mit der letzten Production der erwähnten Modelle fand eine Änderung des Drehtellerantriebes statt. Die folgende Aufstellung enthält die Änderungen sowie die Verwendung der Ersatzteile.

Beschreibung	Original ET-Nr.	Neue ET-Nr.	Ersatzteile (Bestell-Nr.)	Bemerkung
U-Scheibe			 (A21774080BP)	Anmerkung 1 beachten
Ring f. Rolle kpl.			 (A290D4080SS)	Anmerkung 1 beachten
Rolle B kpl.			 (A202K4080BP)	Anmerkung 1 beachten
Glasplatte	 1,0kg	 1,55kg	 1,55kg (A06014080BP)	Anmerkung 2

Anmerkung 1: Beide Ersatzteile, original und modifiziertes, werden unter der bekannten Artikelnummer geliefert. Vor dem Einbau des Ersatzteiles ist sicherzustellen, daß nur identische Teile (Maße) verwendet werden.

Anmerkung 2: Bei Ersatz des Drehtellers ist die Ersatzteil-Nummer A06014080BP zu verwenden (Drehteller 1,55 kg).